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FILE 'HOME' ENTERED AT 14:27:38 ON 12 DEC 2002

=> file .jacob
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	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

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=> s conjugat near2 enzyme
L1 0 FILE CAPLUS
L2 0 FILE MEDLINE
L3 0 FILE EMBASE
L4 0 FILE BIOSIS

TOTAL FOR ALL FILES
L5 0 NEAR2 ENZYME

=> s conjugated near2 enzyme
L6 0 FILE CAPLUS
L7 0 FILE MEDLINE
L8 0 FILE EMBASE
L9 0 FILE BIOSIS

TOTAL FOR ALL FILES
L10 0 CONJUGATED NEAR2 ENZYME

=> s conjugat and carrier
MISSING TERM BEFORE 'AND'
Search expressions cannot begin with operators.

=> s conjugat near carrier
L11 9 FILE CAPLUS
L12 1 FILE MEDLINE
L13 1 FILE EMBASE
L14 1 FILE BIOSIS

TOTAL FOR ALL FILES
L15 12 NEAR CARRIER

```
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L16     281973 FILE CAPLUS
L17     123981 FILE MEDLINE
L18      65393 FILE EMBASE
L19      67847 FILE BIOSIS

TOTAL FOR ALL FILES
L20     539194 WITH CARRIER

=> s l20 same enzyme
MISSING OPERATOR L20 SAME
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l20 same (enzyme)
MISSING OPERATOR L20 SAME
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l20 and enzyme
L21      11282 FILE CAPLUS
L22      12598 FILE MEDLINE
L23       8430 FILE EMBASE
L24       6332 FILE BIOSIS

TOTAL FOR ALL FILES
L25      38642 L20 AND ENZYME

=> s l25 and detection
L26        945 FILE CAPLUS
L27       1121 FILE MEDLINE
L28       1077 FILE EMBASE
L29        804 FILE BIOSIS

TOTAL FOR ALL FILES
L30       3947 L25 AND DETECTION

=> s l30 and immunoassay
L31        319 FILE CAPLUS
L32        154 FILE MEDLINE
L33        140 FILE EMBASE
L34        152 FILE BIOSIS

TOTAL FOR ALL FILES
L35        765 L30 AND IMMUNOASSAY

=> s l35 and complex
L36         43 FILE CAPLUS
L37         25 FILE MEDLINE
L38         24 FILE EMBASE
L39         22 FILE BIOSIS

TOTAL FOR ALL FILES
L40        114 L35 AND COMPLEX

=> dup rem
ENTER L# LIST OR (END):140
PROCESSING COMPLETED FOR L40
L41          67 DUP REM L40 (47 DUPLICATES REMOVED)

=> s l41 and @py<1998
L42          43 S L41
'1998' NOT A VALID FIELD CODE
L43           0 FILE CAPLUS
```

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L44          14 S L41
'1998' NOT A VALID FIELD CODE
L45           0 FILE MEDLINE
L46           7 S L41
'1998' NOT A VALID FIELD CODE
L47           0 FILE EMBASE
L48           3 S L41
'1998' NOT A VALID FIELD CODE
L49           0 FILE BIOSIS

TOTAL FOR ALL FILES
L50           0 L41 AND @PY<1998

=> s l41 and py<1998
L51          43 S L41
L52          26 FILE CAPLUS
L53          14 S L41
L54          12 FILE MEDLINE
L55           7 S L41
L56           3 FILE EMBASE
L57           3 S L41
L58           3 FILE BIOSIS

TOTAL FOR ALL FILES
L59          44 L41 AND PY<1998

=> s l59 and conjugat
=> s l59 and conjugat3
L60     5633924 FILE CAPLUS
L61     2361335 FILE MEDLINE
L62     1442709 FILE EMBASE
L63     2147300 FILE BIOSIS

TOTAL FOR ALL FILES
L64    11585268 3

=> s l59 same conjugat3
SYSTEM LIMITS EXCEEDED - SEARCH ENDED
L65     2361335 FILE MEDLINE
L66     1442709 FILE EMBASE
L67     2147300 FILE BIOSIS
The search profile you entered was too complex or gave too many
answers.  Simplify or subdivide the query and try again.  If you have
exceeded the answer limit, enter DELETE HISTORY at an arrow prompt
(=>) to remove all previous answers sets and begin at L1.  Use the
SAVE command to store any important profiles or answer sets before
using DELETE HISTORY.

=> s conjuat3 and immunoassay
L68       15562 FILE CAPLUS
L69       12517 FILE MEDLINE
L70        6605 FILE EMBASE
L71       11697 FILE BIOSIS

TOTAL FOR ALL FILES
L72       46381 3 AND IMMUNOASSAY

=> s l59 and l72
L73          13 FILE CAPLUS
L74           5 FILE MEDLINE
L75           0 FILE EMBASE
L76           1 FILE BIOSIS

TOTAL FOR ALL FILES
```

L77 19 L59 AND L72

=> dup rem
ENTER L# LIST OR (END):l77
PROCESSING COMPLETED FOR L77
L78 19 DUP REM L77 (0 DUPLICATES REMOVED)

=> d l78 ibib abs total

L78 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:77173 CAPLUS
DOCUMENT NUMBER: 126:86821
TITLE: **Complex** containing a polymer mediator and a peptide for adsorptive binding to **carrier** surfaces
INVENTOR(S): Keilholz, Wieland; Rammensee, Hans Georg; Stevanovic, Stefan
PATENT ASSIGNEE(S): Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen Rechts, Germany; Keilholz, Wieland; Rammensee, Hans Georg; Stevanovic, Stefan
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9637778	A1	19961128	WO 1996-DE936	19960522 <--
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19518771	A1	19970612	DE 1995-19518771	19950522 <--
DE 19518771	C2	19971204		

PRIORITY APPLN. INFO.: DE 1995-19518771 19950522
AB A method is disclosed for binding peptides, and esp. low-mol.-wt. peptides, to a **carrier** surface in a simple and fast manner by using a **complex** of a polymer with the desired peptide, thereby improving the **detection** range for the peptide. The polymer is a polycarboxylic acid, e.g., polyacrylic acid, or an ester or amide deriv. of it, and EDC is used as the coupling agent. The **carrier** surface can be, e.g., an ELISA plate or a Teflon membrane used for protein sequencing.

L78 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:650777 CAPLUS
DOCUMENT NUMBER: 125:299255
TITLE: **Complexes** between proteinase **3**, .alpha.1-antitrypsin and proteinase **3** anti-neutrophil cytoplasm autoantibodies: A comparison between .alpha.1-antitrypsin PiZ allele **carriers** and non-**carriers** with Wegener's granulomatosis
AUTHOR(S): Baslund, B.; Szpirt, W.; Eriksson, S.; Elzouki, A. -N.; Wiik, A.; Wieslander, J.; Petersen, J.
CORPORATE SOURCE: Department Medicine TTA, Rigshospitalet, Copenhagen, 2200, Den.
SOURCE: European Journal of Clinical Investigation (**1996**), 26(9), 786-792
CODEN: EJCIB8; ISSN: 0014-2972
PUBLISHER: Blackwell
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To test the hypothesis that anti-neutrophil cytoplasm autoantibodies

(ANCAs) interfere with the functions of proteinase **3** (PR3) (the Wegener auto-antigen) and .alpha.1-antitrypsin (.alpha.1AT), **complexes** of PR3/.alpha.1AT and PR3/PR3-ANCA-IgG were assayed. Plasma samples were obtained from 44 patients with Wegener's granulomatosis (WG): 34 had active disease (88% ANCA pos.) whereas 10 patients were in remission (20% ANCA pos.). Plasma samples from 14 of the patients with active disease were also available at the time of remission. The **complexes** of PR3/.alpha.1AT and PR3/PR3-ANCA-IgG were detected by capture **enzyme**-linked **immunoassays** (ELISAs). .alpha.1AT deficiency was evaluated by detg. PiZ alleles by ELISA. Eight (18%) of the patients were PiZ pos. The frequency of this .alpha.1-antitrypsin phenotype in the Scandinavian population is 4.7%. The median PR3/.alpha.1AT **complex** level in the PiZ-pos. group with active disease was similar to the level in the PiZ-neg. group with active disease. During remission the median level for the PR3/.alpha.1AT **complex** was significantly higher than in the acute group including both PiZ-pos. and PiZ-neg. patients. No difference between PiZ pos. and PiZ negativity could be found in the remission group. PR3/PR3-ANCA-IgG **complexes** were found in patients with acute disease as well as in patients in remission, in almost equal frequency. This **complex** was also present in 13/18 ANCA-neg. samples from patients in remission. Finally, purified IgG fractions from WG patients were examd. for their capacity to inhibit binding between PR3 and .alpha.1AT. An effect on the binding between PR3 and .alpha.1AT by PR3-ANCA could not be demonstrated. Thus, the results do not support the hypothesis that PR3-ANCA interferes with the binding between PR3 and .alpha.1AT. However, the high prevalence of the PiZ alleles among WG patients suggests that an imbalance between proteinases and .alpha.1AT may be of importance in this disease. The clin. usefulness of both the PR3/.alpha.1AT and the PR3/PR3-ANCA-IgG **complexes** and the possible influence on ANCA **detection** need to be examd. in prospective longitudinal studies.

L78 ANSWER 3 OF 19 MEDLINE

ACCESSION NUMBER:	95229806 MEDLINE
DOCUMENT NUMBER:	95229806 PubMed ID: 7536201
TITLE:	N-terminal truncated insulin-like growth factor-I in human urine.
AUTHOR:	Yamamoto H; Murphy L J
CORPORATE SOURCE:	Department of Internal Medicine, University of Manitoba, Winnipeg, Canada.
SOURCE:	JOURNAL OF CLINICAL ENDOCRINOLOGY AND METABOLISM, **(1995 Apr)** 80 (4) 1179-83. Journal code: 0375362. ISSN: 0021-972X.
PUB. COUNTRY:	United States
DOCUMENT TYPE:	Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:	English
FILE SEGMENT:	Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH:	199505
ENTRY DATE:	Entered STN: 19950524 Last Updated on STN: 19960129 Entered Medline: 19950512

AB Urinary insulin-like growth factor-I (IGF-I) from healthy human subjects was examined using two antisera directed toward the whole molecule (WM) and the N-terminal of IGF-I. Pooled urine samples from normal adults were dialyzed, lyophilized, then subjected to Sephacryl S-200 chromatography. The gel filtration profile of immunoreactive IGF-I measured by RIA using WM antiserum showed two peaks. Of the total IGF-I, approximately 40% was free, and the rest was present as a 50-kilodalton **complex**. To characterize the IGF-I forms present in those two peaks, antibody capture **enzyme**-linked **immunoassays** (EIA) using the two antisera were established for **detection** of intact IGF-I and N-terminal-truncated IGF-I variants. The WM antibody recognizes intact IGF-I and des(1-**3**)-IGF-I, an N-terminal-truncated variant, equally well, whereas the N-terminal IGF-I antibody recognizes intact

IGF-I, but not des(1-**3**)-IGF-I (< 1% cross-reactivity). As both antibodies show similar cross-reactions with IGF-II, the difference between IGF-I levels recognized by the two antisera was considered to indicate the presence of N-terminal-truncated IGF-I variants. Of the free immunoreactive IGF-I in the urine, 64% was not recognized by N-terminal IGF-I antiserum and was considered to represent N-terminal-truncated IGF-I. In contrast, only 6% of the IGF-I present in the 50-kilodalton fraction was truncated. Urine samples from normal human subjects were analyzed by RIA with WM antiserum and EIA with both WM and N-terminal IGF-I antisera after extraction of IGF-I from binding proteins. IGF-I values measured by EIA with the WM antiserum correlated well with those values obtained by RIA using WM antiserum ($r = 0.98$; $P < 0.001$). The total urinary IGF-I level measured by EIA with the WM antiserum was 216.0 +/- 41.1 ng/L (mean +/- SEM), and 35.2 +/- 6.1% of this was considered to represent N-terminal-truncated IGF-I. Using an immobilized biotinylated peptide corresponding to the N-terminal six amino acids of IGF-I, we detected proteolytic activity toward the N-terminal of IGF-I in all four human serum samples tested. In contrast, only two of seven urine samples had detectable protease activity, and in these samples, activity was very low compared to that in serum.(ABSTRACT TRUNCATED AT 400 WORDS)

L78 ANSWER 4 OF 19 MEDLINE
ACCESSION NUMBER: 95341201 MEDLINE
DOCUMENT NUMBER: 95341201 PubMed ID: 7639849
TITLE: Low level quantification of cholesteryl ester transfer protein in plasma subfractions and cell culture media by monoclonal antibody-based **immunoassay**.
AUTHOR: Clark R W; Moberly J B; Bamberger M J
CORPORATE SOURCE: Department of Cardiovascular and Metabolic Diseases, Pfizer, Inc., Groton, CT 06340, USA.
SOURCE: JOURNAL OF LIPID RESEARCH, **(1995 Apr)** 36 (4) 876-89.
Journal code: 0376606. ISSN: 0022-2275.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199508
ENTRY DATE: Entered STN: 19950905
Last Updated on STN: 19960129
Entered Medline: 19950818

AB Sensitive immunoradiometric (IRMA) and ELISA assays for cholesteryl ester transfer protein (CETP) have been developed using two different monoclonal antibodies (MAbs). The MAbs were prepared against human plasma CETP and demonstrated specificity by their inhibition of cholesteryl ester transfer activity and by immunoblots of crude plasma fractions and whole media from transfected CHO cells. For these sandwich-type assays, one MAb, 2F8, is used for capture, and the second MAb, 2E7, is iodinated (IRMA) or conjugated with alkaline phosphatase (ELISA) and used for **detection**. Both assays are linear and provide sensitivities much greater than previously reported. The IRMA allows for the accurate quantification of CETP in the range of 0.5-20 ng/assay (5-200 ng/ml), the ELISA 0.05-5 ng/assay (0.5-50 ng/ml). Using the IRMA, the mean plasma CETP concentration in 44 normolipidemic individuals was determined to be 2.10 +/- 0.36 micrograms/ml; 2.05 +/- 0.33 for males ($n = 25$) and 2.16 +/- 0.40 for females ($n = 19$). Values ranged from 1.28 to 2.97 micrograms/ml and CETP mass correlated well with cholesteryl ester transfer activity ($r = 0.913$, $n = 23$). The distribution of CETP in human plasma was examined both by gel permeation fast protein liquid chromatography (FPLC) and by native gel electrophoresis. For FPLC using agarose resins, a low ionic strength, isotonic buffer system resulted in near total recoveries of CETP, and demonstrated a peak for CETP mass centered at molecular masses of 150 to 180 kilodaltons, larger than that for free monomeric CETP. Native acrylamide gel electrophoresis of plasma from six individuals, followed by

2F8/2E7 sandwich immunoblotting, showed CETP migrating within a size range of 170-220 kilodaltons. This result is consistent with suggestions that plasma CETP is associated with small-sized HDL. Agarose gel electrophoresis showed plasma CETP, as well as purified recombinant CETP, to be prebeta migrating. For determining the concentration of CETP in the media of cultured HepG2 cells, advantage was taken of the high sensitivity of the ELISA. CETP levels were found to increase linearly over the 100-h culture period, reaching 8.0 +/- 0.4 ng/ml (18.0 +/- 1.3 ng/mg cell protein). These sensitive, direct **immunoassays** for CETP mass should be valuable aids for examining the behavior of CETP in plasma and other **complex** systems, as well as for studying the synthesis and secretion of CETP by different cells and tissues.

L78 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:942518 CAPLUS
DOCUMENT NUMBER: 124:25118
TITLE: Diagnosis of HIV-1 infection with whole saliva by **detection** of antibody IgG to HIV-1 with ultrasensitive **enzyme immunoassay** using recombinant reverse transcriptase as antigen
AUTHOR(S): Ishikawa, Setsuko; Hashida, Seiichi; Hashinaka, Kazuya; Hirota, Kouichi; Saitoh, Atsushi; Takamizawa, Akihisa; Shinagawa, Hideo; Oka, Shinichi; Shimada, Kaoru; Ishikawa, Eiji
CORPORATE SOURCE: Department Biochemistry, Medical College Miyazaki, Miyazaki, 889-16, Japan
SOURCE: Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology (**1995**), 10(1), 41-7
CODEN: JDSRET; ISSN: 1077-9450
PUBLISHER: Lippincott-Raven
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Whole-saliva samples were collected from 45 asymptomatic **carriers**, 18 patients with AIDS-related **complex** (ARC) or AIDS, and 76 medical students by simple spitting with no stimulation and tested by an ultrasensitive **enzyme immunoassay** (immune **complex** transfer **enzyme immunoassay**) for anti-HIV-1 IgG using recombinant reverse transcriptase as antigen and .beta.-D-galactosidase as label. With as little as 1 .mu.l of whole saliva, the lowest signals among the 45 asymptomatic **carriers**, 8 patients with ARC, and 10 patients with AIDS were 38-, 78-, and **3**-fold, resp., higher than the highest signal among the medical students. When the vol. of whole saliva for test was increased up to 100 .mu.l, no significant effect was obsd. on signals for seropos. cases and signals for the medical students increased only very slightly. Therefore, whole-saliva samples contg. extremely low levels of anti-HIV-1 IgG, even 2,000-fold lower than the lowest level among the 45 asymptomatic **carriers** tested, were considered to be discriminated from those of seroneg. individuals. Thus, the sensitivity and specificity were expected to be both 100% with whole saliva even for a larger no. of samples, although the no. of samples tested was limited.

L78 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:320852 CAPLUS
DOCUMENT NUMBER: 120:320852
TITLE: **Detection** of antibody IgG to HIV-1 in urine by ultrasensitive **enzyme immunoassay** (immune **complex** transfer **enzyme immunoassay**) using recombinant p24 as antigen for diagnosis of HIV-1 infection
AUTHOR(S): Hashida, Seiichi; Hashinaka, Kazuya; Hirota, Kouichi; Saitoh, Atsushi; Nakata, Atsuo; Shinagawa, Hideo; Oka, Shinichi; Shimada, Kaoru; Mimaya, Jun-ichi; Matsushita, Shuzo

CORPORATE SOURCE: Dep. Biochem., Med. Coll. Miyazaki, Kiyotake, 889-16, Japan
SOURCE: Journal of Clinical Laboratory Analysis (**1994**), 8(2), 86-95
CODEN: JCANEM; ISSN: 0887-8013
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Anti-HIV-1 IgG in urine was detected by an ultrasensitive **enzyme immunoassay** (immune **complex** transfer **enzyme immunoassay**) using recombinant p24 gag protein (p24) of HIV-1 as antigen and .beta.-D-galactosidase from Escherichia coli as label. Anti-HIV-1 IgG in urine was reacted simultaneously with 2,4-dinitrophenyl-bovine serum albumin-recombinant p24 conjugate and recombinant p24-.beta.-D-galactosidase conjugate. The **complex** formed, consisting of the three components, was trapped onto polystyrene balls coated with affinity-purified (anti-2,4-dinitrophenyl group) IgG, eluted with .epsilon.N-2,4-dinitrophenyl-L-lysine, and transferred to polystyrene balls coated with affinity-purified (anti-human IgG .gamma.-chain) IgG. Bound .beta.-D-galactosidase activity was assayed by fluorometry. This assay was at least **3**,000-fold more sensitive than conventional methods. The lowest signal among 49 asymptomatic **carriers** was **3**.1-fold higher than the highest nonspecific signal among 100 seroneg. subjects. The sensitivity and specificity were both 100%. The positivity could be confirmed by preincubation of urine samples with excess of the antigen. Thus, this assay would be a powerful tool for detecting IgG antibody to HIV-1 in urine.

L78 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:590114 CAPLUS
DOCUMENT NUMBER: 117:190114
TITLE: Synthetic antigens for the **detection** of antibodies to hepatitis C virus (HCV)
INVENTOR(S): DeLeys, Robert J.; Pollet, Dirk; Maertens, Geert; Van Heuverswyn, Hugo
PATENT ASSIGNEE(S): Innogenetics N.V., Belg.
SOURCE: Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
EP 489968	A1	19920617	EP 1990-124241	19901214	<--
EP 489968	B1	19961106			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE					
EP 644202	A1	19950322	EP 1994-108611	19901214	<--
EP 644202	B1	19970305			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE					
AT 144993	E	19961115	AT 1990-124241	19901214	<--
EP 754704	A2	19970122	EP 1996-201157	19901214	<--
EP 754704	A3	19970528			
EP 754704	B1	19991006			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE					
ES 2095852	T3	19970301	ES 1990-124241	19901214	<--
AT 149522	E	19970315	AT 1994-108611	19901214	<--
ES 2101388	T3	19970701	ES 1994-108611	19901214	<--
AT 185350	E	19991015	AT 1996-201157	19901214	
ES 2138784	T3	20000116	ES 1996-201157	19901214	
IL 100158	A1	19980222	IL 1991-100158	19911126	
CA 2074370	AA	19920615	CA 1991-2074370	19911213	<--
WO 9210514	A2	19920625	WO 1991-EP2409	19911213	<--

WO 9210514	A3	19920820		
W: AU, BR, CA, HU, JP, KR, US				
AU 9190689	A1	19920708	AU 1991-90689	19911213 <--
AU 652013	B2	19940811		
BR 9106220	A	19930330	BR 1991-6220	19911213 <--
JP 05503722	T2	19930617	JP 1992-500998	19911213 <--
HU 65930	A2	19940728	HU 1992-2645	19911213 <--
HU 218357	B	20000828		
JP 2995216	B2	19991227	JP 1991-500998	19911213
US 5922532	A	19990713	US 1995-391671	19950221
US 5910404	A	19990608	US 1995-466975	19950606
US 6007982	A	19991228	US 1995-467902	19950606
US 6287761	B1	20010911	US 1999-275265	19990323
US 2002106640	A1	20020808	US 2001-941611	20010830

PRIORITY APPLN. INFO.:

EP 1990-124241	A3	19901214
EP 1994-108611	A	19901214
EP 1996-201157	A	19901214
SG 1996-5024	A	19901214
WO 1991-EP2409	A	19911213
US 1992-920286	B1	19921014
US 1995-391671	A3	19950221
US 1999-275265	A3	19990323

OTHER SOURCE(S): MARPAT 117:190114

AB Synthetic peptides .gtoreq.5 amino acids long having sequences mimicking those of proteins encoded by HCV are prepd. for use as reagents for screening of blood and blood products for prior exposure to HCV, for **detection** of antibodies to HCV, for **detection** of HCV antigens, and as immunogens. The peptides are fragments of regions 1-92, 1688-1749, and 2263-2330 in the composite protein encoded by the HCV genome. The peptides may be attached to a **carrier** mol. via a linker. Thus, anti-HCV antibodies were detected in sera from patients with acute non-A, non-B hepatitis by incubation with individual peptides bound to a nylon membrane; the bound immune **complexes** were visualized with a goat anti-human IgG-alk. phosphatase conjugate, 5-bromo-4-chloro-**3**-indolyl phosphate, and NBT.

L78 ANSWER 8 OF 19 MEDLINE

ACCESSION NUMBER: 93055200 MEDLINE

DOCUMENT NUMBER: 93055200 PubMed ID: 1430052

TITLE: Serological **detection** of HBeAg and anti-HBe using automated microparticle **enzyme immunoassays**.

AUTHOR: Robbins D; Wright T; Coleman C; Umhoefer L; Moore B; Spronk A; Douville C; Kuramoto I K; Rynning M; Gracey D; +

CORPORATE SOURCE: Hepatitis R & D, Abbott Laboratories, Abbott Park, IL 60064.

SOURCE: JOURNAL OF VIROLOGICAL METHODS, **(1992 Aug-Sep)** 38 (3) 267-81.
Journal code: 8005839. ISSN: 0166-0934.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199212

ENTRY DATE: Entered STN: 19930122
Last Updated on STN: 19980206
Entered Medline: 19921211

AB Fully automated microparticle **enzyme immunoassays** (EIA) were developed for the **detection** of HBeAg (IMx HBe) and antibodies against HBeAg (IMx anti-HBe), respectively. Specimens from blood donors, diagnostic and hospital patients and individuals with a variety of infectious and immune diseases were tested both in house and at four clinical sites. The overall agreement between IMx HBe and Abbott HBe RIA/EIA was 99.7% (2985 of 2994) and between IMx anti-HBe and anti-HBe

RIA/EIA was 95.8% (2330 of 2432). Almost all anti-HBe discordant specimens (94.1%, 96 of 102) were reactive by IMx anti-HBe but negative by anti-HBe RIA/EIA. off anti-HBe discordant specimens were also reactive for anti-HBc. The IMx anti-HBe assay was 2- to 4-fold more sensitive than the current RIA as determined by serial dilution of anti-HBe reactive specimens. The ability of these IMx assays to detect HBeAg and anti-HBe in 199 HBsAg reactive specimens was also evaluated. 43.7% (87 of 199) and 66. 3% (132 of 199) specimens were reactive for HBeAg and anti-HBe by IMx, respectively. Only one specimen was negative for both IMx assays compared to 14 (7.0%) non-reactive for both HBe and anti-HBe RIA. There were 24 specimens (12.1%) positive for both HBeAg and anti-HBe by IMx compared to 1 (0.5%) positive by the corresponding RIAs. This increased detectability of anti-HBe in HBsAg **carriers** using IMx anti-HBe may result from increased sensitivity for 'free' anti-HBe and/or increased ability to detect anti-HBe in immune **complex**. IMx anti-HBe also detected more reactives among volunteer blood donor specimens reactive for anti-HBc but negative for HBsAg (55.5%, 86 of 155), compared to RIA (38.7%, 60 of 155). IMx anti-HBe may be useful in confirming prior exposure to HBV in blood screened positive by Corzyme.

L78 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:39665 CAPLUS
DOCUMENT NUMBER: 116:39665
TITLE: Immunogenic peptides of a variant of LAV (lymphadenopathy virus)
INVENTOR(S): Alizon, Marc; Sonigo, Pierre; Wain-Hobson, Simon; Montagnier, Luc
PATENT ASSIGNEE(S): Institut Pasteur, Fr.
SOURCE: U.S., 49 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 5034511	A	19910723	US 1987-38332	19870413	<--
US 5869631	A	19990209	US 1991-656796	19910219	
US 6337179	B1	20020108	US 1995-423477	19950419	
US 5747242	A	19980505	US 1995-466907	19950606	
US 2002076691	A1	20020620	US 2001-767138	20010123	
US 2002086285	A1	20020704	US 2001-986799	20011113	

PRIORITY APPLN. INFO.:
EP 1986-401380 A 19860623
US 1987-38332 A3 19870413
US 1991-656796 A3 19910219
US 1995-423477 A1 19950419

AB Immunogenic peptide sequences from LAVELI are presented. An immunogenic compn. comprising such a peptide and a physiol. acceptable **carrier** as well as a diagnostic kit for detecting antibodies to LAV comprising such a peptide and a reagent for detecting the formation of peptide/antibody **complex** are also claimed. Sequences are claimed from env, gag, and pol proteins. The complete cDNA of LAVELI is presented. The sequence was compared with those for other LAV.

L78 ANSWER 10 OF 19 MEDLINE
ACCESSION NUMBER: 92006161 MEDLINE
DOCUMENT NUMBER: 92006161 PubMed ID: 1833092
TITLE: Studies on the measurement of protein S in plasma.
AUTHOR: Bovill E G; Landesman M M; Busch S A; Fregeau G R; Mann K G; Tracy R P
CORPORATE SOURCE: Department of Pathology, University of Vermont, Burlington 05405.
CONTRACT NUMBER: HL35058 (NHLBI)

SOURCE: CLINICAL CHEMISTRY, **(1991 Oct)** 37 (10 Pt 1) 1708-14.
Journal code: 9421549. ISSN: 0009-9147.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199111
ENTRY DATE: Entered STN: 19920124
Last Updated on STN: 19920124
Entered Medline: 19911121

AB The anticoagulant factor Protein S circulates in two major forms, free and bound to C4b binding protein (C4BP). We report a monoclonal antibody-based **enzyme**-linked immunosorbent assay of human Protein S that is sensitive (**detection** limit 30 ng) and free of notable competition from other vitamin K-dependent proteins. We demonstrate assay sensitivity to Protein S-C4BP **complex**, as well as to free Protein S by (a) results of immunoaffinity chromatography involving the assay antibody; (b) parallelism between the standard curve and a plasma dilution curve, including dilutions greater than 100-fold; (c) lack of effect of added C4BP on Protein S values; and (d) reactivity in the assay by high-molecular-mass plasma Protein S in gel permeation studies. These latter studies also indicate that uncomplexed Protein S has an apparent molecular mass of approximately 150,000 Da, attributable to either polymerization or conformational considerations. Inter- and intra-assay CVs were 9.8% and 5.1%, respectively, and 90% of Protein S added to plasma was recovered. Reference ranges (mean and SD) for total Protein S in middle-aged normal subjects were 16.6 (1.9) mg/L for men (n = 54) and 16.0 (3.0) mg/L for women (n = 38). In the polyethylene glycol precipitation method, the reference values for free Protein S were 5.4 (1.6) mg/L for men and 4.4 (1.1) mg/L for women.

L78 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:404726 CAPLUS
DOCUMENT NUMBER: 115:4726
TITLE: Method for detecting antigenic substances in fluid samples with **immunoassay** test strips without the need for multiple steps or washing
INVENTOR(S): Gould, Martin; Vulimiri, Sudhakar
PATENT ASSIGNEE(S): Ampcor, Inc., USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9015328	A1	19901213	WO 1990-US3222	19900606 <--
W: AU, BB, BG, BR, CA, DK, ES, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU				
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
CA 2058939	AA	19901207	CA 1990-2058939	19900605 <--
WO 9015327	A1	19901213	WO 1990-US3101	19900605 <--
W: AU, BB, BG, BR, CA, CH, DE, DE, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SE, SU				
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
AU 9058196	A1	19910107	AU 1990-58196	19900605 <--
AU 643950	B2	19931202		
EP 477235	A1	19920401	EP 1990-909240	19900605 <--
EP 477235	B1	19980107		

R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE

JP 05504617	T2	19930715	JP 1990-508839	19900605	<--
AT 161963	E	19980115	AT 1990-909240	19900605	
AU 9058257	A1	19910107	AU 1990-58257	19900606	<--
US 5620845	A	19970415	US 1994-306250	19940914	<--

PRIORITY APPLN. INFO.:

US 1989-361878	19890606
US 1989-447594	19891208
US 1990-530182	19900604
US 1988-361878	19880606
WO 1990-US3101	19900605
WO 1990-US3222	19900606
US 1992-917916	19920721

AB An **immunoassay** process for detg. an antigenic substance [e.g. human chorionic gonadotropin (HCG)] in a fluid sample (e.g. serum) without the need for multiple steps or washing involves: (1) contacting a fluid sample with a labeled capture reagent against an antigenic substance to be assayed (e.g. alk. phosphatase-labeled anti-HCG monoclonal antibody), (2) contacting the fluid sample and the labeled captive reagent with a **carrier** membrane (adhered to a support) having bound to the surface thereof an effective amt. of a bound capture reagent against the test antigenic substance (e.g. polyclonal antibody to .beta.-HCG), and (3) detg. whether the labeled capture reagent is bound to the solid **carrier**. The **carrier** membrane (on dip stick-type test strip) is pretreated with e.g. goat serum, casein, and then borate buffer optionally contg. mannitol to block the bound immunol. active agent against nonsp. binding of components in the assay system. The **carrier** membrane is used to sep. an immunol. **complex** from a reaction soln. An app. (device) for the **immunoassay** also is claimed.

L78 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:	1991:160340 CAPLUS
DOCUMENT NUMBER:	114:160340
TITLE:	Preparation and use of monoclonal antibodies for detecting and purifying tissue factor in urine, and for diagnosing renal diseases
INVENTOR(S):	Koike, Yukiya; Sumi, Yoshihiko; Ichikawa, Yataro
PATENT ASSIGNEE(S):	Teijin Ltd., Japan
SOURCE:	PCT Int. Appl., 14 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	Japanese
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9008956	A1	19900809	WO 1990-JP127	19900202	<--
W: AU, CA, NO, US					
RW: BE, CH, DE, DK, FR, GB, SE					
JP 02203795	A2	19900813	JP 1989-22634	19890202	<--
JP 2779193	B2	19980723			
JP 02216054	A2	19900828	JP 1989-36228	19890217	<--
JP 02275359	A2	19901109	JP 1989-96456	19890418	<--
AU 9050347	A1	19900824	AU 1990-50347	19900102	<--
AU 631603	B2	19921203			
CA 2026666	AA	19900803	CA 1990-2026666	19900202	<--
EP 417298	A1	19910320	EP 1990-902686	19900202	<--
R: BE, CH, DE, DK, FR, GB, LI, SE					
JP 03232900	A2	19911016	JP 1990-199203	19900730	<--
NO 9004288	A	19901128	NO 1990-4288	19901002	<--

PRIORITY APPLN. INFO.:

JP 1989-22634	19890202
JP 1989-36228	19890217
JP 1989-96456	19890418

JP 1989-314602 19891204
WO 1990-JP127 19900102

AB Monoclonal antibodies, specifically recognizing epitopes of tissue factor (TF) without interfering with blood coagulation, are prepd. for purifn. of TF from human urine. The anti-TF monoclonal antibodies are used to detect TF in urine and to diagnose renal diseases (e.g. renal failure, nephrosis, or nephritis). Three methods are described for the **detection** of human TF in urine: (1) using 2 monoclonal antibodies which recognize different TF epitopes in a sandwich-type EIA, i.e. one monoclonal antibody is conjugated with water-insol. **carrier** and the other is labeled with **enzyme** marker; (2) using immobilized anti-TF monoclonal antibody to bind labeled TF or sample TF in a competitive **immunoassay**; and (3) using labeled anti-TF monoclonal antibody to bind sample TF and then form a **complex** with immobilized anti-TF antibody, followed by sepn. of the **complex** and measurement of the label. Thus, purified human placental TF apoprotein was used to raise anti-TF monoclonal antibodies (GX3, GX4, and EX6) by the traditional hybridoma technique. GX3 was used to purify TF from human urine. The sequence and amino acid compn. of the purified human TF were detd.

L78 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:203149 CAPLUS
DOCUMENT NUMBER: 114:203149
TITLE: Methods for **carrier** association, sample separation, and **carrier** dissociation for rapid and sensitive antibody or antigen **detection**
INVENTOR(S): Ishikawa, Eiji; Tanaka, Satoshi
PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02198361	A2	19900806	JP 1989-17873	19890128 <--

AB A procedure involving (1) assocn. of a functional group-recognizing **carrier**, the functional group-contg. antigen, test antibody, and a labeled antigen; (2) sepn. of the **carrier**-antigen-antibody-label **complex** from the sample; and (3) dissocn. of the antibody-antigen-label conjugate from the **carrier** **complex** and **detection** of the activity of the label is used for a fast and highly-sensitive antibody assay. Thus, thyroglobulin-.beta.-D-galactosidase, dinitrophenyl-thyroglobulin, and rabbit anti-dinitrophenyl albumin-polystyrene bead conjugates were prepd. to form a **complex** with anti-thyroglobulin antibody in serum of a patient with Basedow's disease. Dinitrophenyllysine was also prepd. to dissoc. .beta.-D-galactosidase conjugate from the **carrier** **complex** for **enzyme** activity assay and antibody detn.

L78 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:436282 CAPLUS
DOCUMENT NUMBER: 111:36282
TITLE: Methods and compositions for the **detection** of AROS by use of antibodies from marmosets recovered from marmoset wasting syndrome
INVENTOR(S): Wechter, Stephen R.; Lindner, Luther E.
PATENT ASSIGNEE(S): USA
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 279970	A1	19880831	EP 1987-301675	19870225 <--

R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE

AB A method for diagnosing AIDS in a suspected **carrier** comprises (a) mixing a lymphoid cell sample with tracer-tagged antibodies (Ab) selectively reactive with AIDS tissue, the Ab obtained from marmosets afflicted with or recovered from marmoset wasting syndrome; (b) incubating the mixt. to form an immune **complex**; (c) detecting a pos. immunoreaction which is indicative of AIDS. Serum from marmosets recovered from marmoset wasting syndrome was dild. with phosphate-buffered saline (PBS), pptd. with (NH4)2SO4, dissolved in PBS, placed on a protein A-agarose column, eluted with AcOH 0.5% in 0.15 M NaCl, and then biotinylated by reaction with 1% N-hydroxy-succinimidobiotin at room temp. for **3**-**3**.5 h. The labeled Ab was reacted with formalin-fixed tissue from AIDS and nonAIDS autopsies, lymph node and/or spleen tissue from nonAIDS patients, and a plasmacytoma from a nonAIDS patient, and then reacted with Avidin DH-biotin-peroxidase and diaminobenzidine. Lymphocytes and macropahges from all AIDS patients, and the plasmacytoma, showed pos. staining. NonAIDS lymphoid tissue did not stain or showed nonspecific staining.

L78 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1986:46367 CAPLUS
DOCUMENT NUMBER: 104:46367
TITLE: Solid-borne **complex** bearing a chromogen responsive functionality for antibody, antigen, receptor, or ligand **detection**
INVENTOR(S): Crockford, David R.
PATENT ASSIGNEE(S): Chromagenics, Inc., USA
SOURCE: Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 155224	A2	19850918	EP 1985-630029	19850314 <--
EP 155224	A3	19870506		

R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE

JP 60218071	A2	19851031	JP 1985-52149	19850315 <--

PRIORITY APPLN. INFO.: US 1984-589723 19840315

AB An antibody, e.g. to human chorionic gonadotropin (hCG), is immobilized covalently and is also bound to a **carrier complex** which bears addnl. antibody and a chromogenic reagent (e.g. an **enzyme**), for detn. of hCG or other antigens by competitive **immunoassay**. Alternatively, the antigen may be immobilized. Sensitivity is increased by labeling the **carrier complex** with a large no. of mols. of chromogenic agent. Thus, for hCG detn. in human urine for pregnancy testing, aminohexyl-Ficoll 70 was thiolated with N-succinimidyl **3**-(2-pyridylthio)propionate and allowed to react with similarly thiolated hCG and thiolated horseradish peroxidase [mol ratios 1:2 and 1:(4-15), resp.]. Antibody to .beta.-hCG was lightly maleimidated and immobilized on thiolated nylon-6 plates. The plates were sensitized with the Ficoll 70-hCG-peroxidase **carrier** and exposed to sample urine. The presence of sol. **carrier complex** displaced by urinary hCG was detected after removal of the plates by addn.

of the peroxidase substrates, aminoantipyrine and H2O2.

L78 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:154612 CAPLUS
DOCUMENT NUMBER: 94:154612
TITLE: Erythrocytes as antigen-**carrier** for **enzyme-immunoassay**
AUTHOR(S): Warweg, Urs; Koerting, Hans Joachim
CORPORATE SOURCE: Neurovirol. Abt., Med. Akad., Erfurt, Fed. Rep. Ger.
SOURCE: Acta Histochemica (**1981**), 68(2), 160-3
CODEN: AHISA9; ISSN: 0065-1281
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Erythrocytes were sensitized with a com. prepn. of influenza-virus antigens for serum antibody detn. by **enzyme immunoassay** . Bound serum antibodies were detd. by spectrophotometric-microscopic **detection** of anti-IgG-peroxidase **complex** activity with **3,3'**-diaminobenzidine. The pseudoperoxidase activity of erythrocytes was completely inhibited by 1% Na nitroferrocyanide and 0.2% HOAc in MeOH. Results with peroxidase as label were similar to those with FITC as label and fluorometric-microscopic **detection**.

L78 ANSWER 17 OF 19 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1982:151104 BIOSIS
DOCUMENT NUMBER: BA73:11088
TITLE: CIRCULATING IMMUNE **COMPLEXES** AS BOTH A HANDICAP AND AN AID IN DETECTING HEPATITIS B SURFACE ANTIGEN **CARRIERS**.
AUTHOR(S): PINTERA J
CORPORATE SOURCE: BLOOD TRANSFUSION DEP., FAC. HOSP., BRNO-BOHUNICE.
SOURCE: SCR MED (BRNO), (1981) 54 (3), 131-140.
CODEN: SCMEBF. ISSN: 0036-9721.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The pegikem test for detecting circulating immune **complexes** (CIC) in 59 anti-HBs [antibody to hepatitis B surface antigen] **carriers** revealed 2 positives (**3**.4%). This incidence is not higher than CIC in a normal population (1-7%). The examination of 57 HBsAg [hepatitis B surface antigen] **carriers** revealed CIC in 28.07%, significantly > in a normal population. In 15 of 16 **carriers** with CIC and HBsAg, the isolated CIC were shown by Ausria II to contain a specific HbsAg component, presumably bound with specific antibody. If simultaneous HBsAg and anti-HBs formations are quantitatively proportionate to each other, both the reactants could become undetectable by common methods and their carriership could be demonstrated only by the presence of CIC. The disparity between negative or atypical CIEP [counterimmunoelectrophoresis] reactins and relatively high Ausria II positivity for HBsAg, observed in some cases, may be explained by CIC which disturb CIEP reactivity but do not hinder the radio- or **enzyme immunoassay**. A corresponding effect has been attained in vitro by addition of anti-HBs to HBsAg. Where only CIEP is used for HBsAg **detection**, 83% of hospitalized non-B acute hepatitis patients can be misdiagnosed.

L78 ANSWER 18 OF 19 MEDLINE
ACCESSION NUMBER: 81091640 MEDLINE
DOCUMENT NUMBER: 81091640 PubMed ID: 6161054
TITLE: Antigen-specific **detection** of HBsAg-containing immune-

B; Bengal E; Mesilati S; Abu-Hatoum O; Schwartz A L; Ciechanover A
CORPORATE SOURCE: Department of Biochemistry, Carmel Medical Center, Faculty of Medicine, Technion-Israel Institute of Technology, Haifa, Israel.
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1996 Jan 5) 271 (1) 302-10.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199602
ENTRY DATE: Entered STN: 19960306
Last Updated on STN: 19960306
Entered Medline: 19960220

AB Degradation of a protein via the ubiquitin system involves two discrete steps, conjugation of ubiquitin to the substrate and degradation of the adduct. Conjugation follows a three-step mechanism. First, ubiquitin is activated by the ubiquitin-activating enzyme, E1. Following activation, one of several E2 **enzymes** (ubiquitin-**carrier proteins** or ubiquitin-**conjugating enzymes**, UBCs) transfers ubiquitin from E1 to the protein substrate that is bound to one of several ubiquitin-protein ligases, E3s. These enzymes catalyze the last step in the process, covalent attachment of ubiquitin to the protein substrate. The binding of the substrate to E3 is specific and implies that E3s play a major role in recognition and selection of proteins for conjugation and subsequent degradation. So far, only a few ligases have been identified, and it is clear that many more have not been discovered yet. Here, we describe a novel ligase that is involved in the conjugation and degradation of non "N-end rule" protein substrates such as actin, troponin T, and MyoD. This substrate specificity suggests that the enzyme may be involved in degradation of muscle proteins. The ligase acts in concert with E2-F1, a previously described non N-end rule UBC. Interestingly, it is also involved in targeting lysozyme, a bona fide N-end substrate that is recognized by E3 alpha and E2-14 kDa. The novel ligase recognizes lysozyme via a signal(s) that is distinct from the N-terminal residue of the protein. Thus, it appears that certain proteins can be targeted via multiple recognition motifs and distinct pairs of conjugating enzymes. We have purified the ligase approximately 200-fold and demonstrated that it is different from other known E3s, including E3 alpha/UBR1, E3 beta, and E6-AP. The native enzyme has an apparent molecular mass of approximately 550 kDa and appears to be a homodimer. Because of its unusual size, we designated this novel ligase E3L (large). E3L contains an -SH group that is essential for its activity. Like several recently described E3 enzymes, including E6-AP and the ligase involved in the processing of p105, the NF-kappa B precursor, the novel ligase is found in mammalian tissues but not in wheat germ.

L7 ANSWER 16 OF 47 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1995-184368 [24] WPIDS
DOC. NO. NON-CPI: N1995-144323
DOC. NO. CPI: C1995-085837
TITLE: Diagnosis of the disseminative intravascular coagulation syndrome - with recognition of the

antigen-antibody complex by means of antibodies conjugated with an enzyme.

DERWENT CLASS: B04 S03
INVENTOR(S): EFREMOV, E E; SAVENKO, T A; VASILEV, S A
PATENT ASSIGNEE(S): (DOCT-R) DOCTORS TRAINING INST
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
RU 2021617	C1	19941015	(199524)*		4

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
RU 2021617	C1	SU 1991-4951403	19910627

PRIORITY APPLN. INFO: SU 1991-4951403 19910627
AN 1995-184368 [24] WPIDS
AB RU 2021617 C UPAB: 19950626

A method for the diagnosis of the disseminative intravascular coagulation syndrome (DIC syndrome) involving addition of the patient's blood plasma to anti-fibrinogenic antibodies, with subsequent recognition of the antigen-antibody complex by means of antibodies conjugated with an enzyme, is new. Heparin is previously introduced into the blood plasma, which is then incubated and centrifuged, and the deposit is dissolved in bicarbonate buffer, and is added to anti-fibrinogenic antibodies, bonded to a **carrier**. A **conjugate** of anti-fibrinogen **antibodies** and an **enzyme** is then introduced, the fibronectin-fibrinogen complex is then recognised, and if the content of the complex is higher than 0.24-0.48mug/ml, moderate severity DIC-syndrome is diagnosed, if this level is 0.12-0.24mug/ml a severe course is diagnosed, and if it is below 0.12mug/ml., an extremely severe course of the DIC-syndrome is diagnosed.

ADVANTAGE - The method is more accurate than previous methods.

Dwg.0/0

L7 ANSWER 17 OF 47 MEDLINE DUPLICATE 11
ACCESSION NUMBER: 94193635 MEDLINE
DOCUMENT NUMBER: 94193635 PubMed ID: 8144544
TITLE: Purification and characterization of a novel species of ubiquitin-carrier protein, E2, that is involved in degradation of non-"N-end rule" protein substrates.
AUTHOR: Blumenfeld N; Gonen H; Mayer A; Smith C E; Siegel N R; Schwartz A L; Ciechanover A
CORPORATE SOURCE: Department of Biochemistry, Faculty of Medicine, Technion-Israel Institute of Technology, Haifa.
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1994 Apr 1) 269 (13) 9574-81.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199405

ENTRY DATE: Entered STN: 19940511
Last Updated on STN: 19990129
Entered Medline: 19940505

AB Ubiquitin-**carrier proteins** (E2s, ubiquitin-**conjugating enzymes**, UBCs) participate in proteolysis by catalyzing transfer of activated ubiquitin to the protein substrates, which are bound to specific ubiquitin-protein ligases (E3s). Yeast UBC2 (RAD6) and the mammalian E2(14kDa) bind to the ligase that recognizes and is involved in the degradation of certain free amino-terminal substrates ("N-end rule" substrates). As such proteins are rather scarce, the role of these E2s in general proteolysis is probably limited. Here, we report the purification and characterization of a novel 18-kDa species of E2 from rabbit reticulocytes. Unlike most members of the E2 family, this enzyme does not adsorb to anion exchange resin in neutral pH, and it is purified from the unadsorbed material (Fraction 1). Thus, it is designated E2-F1. Like all members of the E2 family, it generates a thiol ester with ubiquitin that serves as an intermediate in the conjugation reaction. Sequence analysis revealed a significant homology to many known species of E2s. The enzyme generates multiply ubiquitinated proteins in the presence of an E3 that has not been characterized yet. Most importantly, the ubiquitination via this E2 leads to the degradation of certain non-"N-end rule" substrates such as glyceraldehyde-3-phosphate dehydrogenase (Val at the NH2 terminus) and to the ubiquitination and degradation of certain N-alpha-acetylated proteins such as histone H2A, actin, and alpha-crystallin. The enzyme is also involved in the conjugation and degradation of the tumor suppressor protein p53.

L7 ANSWER 18 OF 47 MEDLINE DUPLICATE 12
ACCESSION NUMBER: 94307409 MEDLINE
DOCUMENT NUMBER: 94307409 PubMed ID: 8034027
TITLE: Complete reconstitution of conjugation and subsequent degradation of the tumor suppressor protein p53 by purified components of the ubiquitin proteolytic system.
AUTHOR: Shkedy D; Gonen H; Bercovich B; Ciechanover A
CORPORATE SOURCE: Department of Biochemistry, Technion-Israel Institute of Technology, Haifa.
SOURCE: FEBS LETTERS, (1994 Jul 11) 348 (2) 126-30.
Journal code: 0155157. ISSN: 0014-5793.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199408
ENTRY DATE: Entered STN: 19940825
Last Updated on STN: 20030304
Entered Medline: 19940815

AB The wild-type tumor suppressor protein p53 is a short-lived protein that plays important roles in regulation of cell cycle, differentiation, and survival. Mutations that inactivate or alter the tumor suppressor activity of the protein seem to be the most common genetic change in human cancer and are frequently associated with changes in its stability. The ubiquitin system has been implicated in the degradation of p53 both in vivo and in vitro. A mutant cell line that harbors a thermolabile ubiquitin-activating enzyme, E1, fails to degrade p53 at the nonpermissive temperature.

AB PURPOSE: To measure simple enzyme immunity of tissue plasmonogen activator (t-PA) without subjecting a plasma sample to an acid treatment by using a polyclonal PC antibody for an insolubilized antibody and antibody labeled with an enzyme.
CONSTITUTION: The t-PA which is an antigen is conjugated with the PC antibody insolubilized on a **carrier** and the PC **antibody** labeled with the **enzyme** is also **conjugated** with the antigen to form a complex. The labeling quantity thereof is measured. The PC antibody is prepd. by dissolving, for example, the t-Pa in a physilogical salt soln., then mixing the soln. with Freund's complete adjuvant, immunizing an animl several times with this soln. to obtain anti-t-Pa anti-serum and salting out this serum to obtain the anti-t-Pa antibody globulin. An active carbon is properly used in addition to magnetic material particles, glass, etc., as the carrier to immobilize the antibody. All the enzymes normally used for EIA are included in the enzyme. The antibody labeled with the enzyme is prepd. by using various protein crosslinking agents. The quantity of the t-Pa which is the antigen is exactly measured in accordance with the common method by measuring this label.

L7 ANSWER 21 OF 47 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1991-039230 [06] WPIDS
DOC. NO. NON-CPI: N1991-030251
DOC. NO. CPI: C1991-016762
TITLE: ELISA kit for detecting bacteria - in which poly clonal antibodies detect coliform bacteria e.g. enterobacteria.
DERWENT CLASS: B04 D13 S03
INVENTOR(S): MORITA, H; USHIYAMA, M; WAKAMOTO, H
PATENT ASSIGNEE(S): (CHCC) CHISSO CORP
COUNTRY COUNT: 3
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
GB 2234587	A	19910206	(199106)*		
FR 2650673	A	19910208	(199113)		
JP 03063571	A	19910319	(199117)		
GB 2234587	B	19940406	(199411)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
GB 2234587	A	GB 1990-16851	19900801
FR 2650673	A	FR 1990-9851	19900801
JP 03063571	A	JP 1989-199299	19890802
GB 2234587	B	GB 1990-16851	19900801

PRIORITY APPLN. INFO: JP 1989-199299 19890802
AN 1991-039230 [06] WPIDS
AB GB 2234587 A UPAB: 20010927
An ELISA kit is claimed for noxious, coliform or food poisoning bacteria, contg. polyclonal antibodies.
USE/ADVANTAGE - The antibody is raised against salmanella,

kiebsiella and/or enterobacter species, esp. Salmonella, typhi, klebsiella pneumoniae and/or Enterobacter cloacea. Coliform bacteria are hygienic indicators of food or drinking water, implying the possible contamination of food or drinking water with faeces and urine. The process is simple, the sensitivity of the kit response is quite good and is conducted in a short time.

In an example - The sample is diluted in sterile physiological buffered saline and added to a culture and incubated at 37 deg C for 4 hrs or more. The liq is added to a carrier coated with a Polyconal antibody and incubated at room temp. for 30 mins. A suspn. of boiled Bacillus subtilis 1FO 13719 is added to a carrier at the same time and incubated. After washing a soln. of **enzyme-antibody conjugate** is added to the **carrier** and incubated at room temp. for 30 mins. After washing, a substrate or a substrate and chromegen are linked to the carrier and incubated at room temp. A similar negative control is done. After 30 mins. the reaction is stopped with dilute H2SO4, and absorbence read until the no. coliform bacteria is 105/ml the loga is taken. When the absorbence or strength is 2.5 times that of the negative control, the sample is said to be positive.

ABEQ GB 2234587 B UPAB: 19940428
An ELISA kit for detecting substantially all of the group consisting of coliforms and the food-poisoning Enterobacteriaceae and substantially no other bacteria, said kit comprising polyclonal antibodies raised against two or more of said group.
Dwg.0/0

L7 ANSWER 22 OF 47 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1991-326336 [45] WPIDS
DOC. NO. NON-CPI: N1991-249915
DOC. NO. CPI: C1991-140984
TITLE: ELISA determn. of low mol. wt. pesticides, antibiotics or toxins - using enzyme labelled antibody reactant, providing lower detection limit.
DERWENT CLASS: B04 C03 D15 D16 J04 S03
INVENTOR(S): SCHECKLIES, E
PATENT ASSIGNEE(S): (SCHE-I) SCHECKLIES E
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
DE 4013004	A	19911031	(199145)*		
DE 4013004	C2	19931021	(199342)		21

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 4013004	A	DE 1990-4013004	19900424
DE 4013004	C2	DE 1990-4013004	19900424

PRIORITY APPLN. INFO: DE 1990-4013004 19900424
AN 1991-326336 [45] WPIDS
AB DE 4013004 A UPAB: 19930928
In the quantitative ELISA determn. of low mol. wt. organic substances (I), the new feature is that an enzyme-coupled antibody

(Ab1) is used as the reaction partner.

Ab1 is coupled to alkaline phosphatase using glutardialdehyde as coupling agent. It is directed against ochratoxin A, aflatoxins M1 or B1; chloramphenicol; zearalenone; triazines; deoxynivalenol; dinitro aromatic cpds.; ergot alkaloids; nitrosamines, penicillins; patulin; phenylureas, or chlorinated anilines or phenols.

USE/ADVANTAGE - This method provides significantly better detection limits (up to 100 times lower) than the conventional process which uses labelled hapten. It is also quicker and less expensive, since derivatisation steps are avoided. The method is esp. used to monitor mycotoxins, antibodies and pesticides in food, water, etc.. Transportable, storage-stable assay kits can be prepd..

1/11

ABEQ DE 4013004 C UPAB: 19931202

Determination of specific organic substances of low molecular mass by an ELISA process comprises incubating a test sample with a corresp. antibody-**enzyme conjugate** and an immobilised **antibody** on an inert solid **carrier**, so that the two antibody components have equal binding constants for the analyte; then measuring the enzyme activity of the solid or soln. phase; and comparing results with those obtd. using standard solns. of the analyte. The enzyme marker of the conjugate is pref. alkaline phosphatase, linked to the antibody by coupling with glutardialdehyde.

USE - Used for a wide range of organic analytes, e.g. toxins, chloroamphenicol, zearalenone, penicillins, alkaloids, nitrosamines, chlorinated phenols, triazines, etc.

Dwg. 1/13

L7 ANSWER 23 OF 47 JAPIO COPYRIGHT 2003 JPO

ACCESSION NUMBER: 1990-136744 JAPIO
TITLE: PRODUCTION OF ENZYME-LABELED ANTIBODY OR ANTIGEN
INVENTOR: YAMADA HIDEAKI
PATENT ASSIGNEE(S): KURARAY CO LTD
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 02136744	A	19900525	Heisei	G01N033-535

APPLICATION INFORMATION
STN FORMAT: JP 1988-290951 19881116
ORIGINAL: JP63290951 Showa
PRIORITY APPLN. INFO.: JP 1988-290951 19881116
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1990

AN 1990-136744 JAPIO

AB PURPOSE: To selectively prepare the labeled body which has enzyme activity and is not so much large in mol. wt. by isolating the enzyme-labeled antibody or antigen from an insoluble carrier. CONSTITUTION: The antibody or antigen is temporarily immobilized to the **carrier** and after the **enzyme** is **conjugated** with the immobilized **antibody** or antigen, the **carrier** is cleaned to remove the free enzyme. The conjugation between this carrier and the antibody or antigen is thereafter cut, by which the conjugate of the enzyme and the antibody or antigen is liberated. All the enzymes used for ordinary

enzyme labeling are usable as the enzyme. The antibody is exemplified by all antibodies, such as polyclonal antibodies and monoclonal antibodies, normally used for enzyme immunoasay (EIA). Any carriers which are insoluble in water and have the spaces into or out of which the enzyme or the antibody or antigen can freely go are usable as the insoluble carrier.

L7 ANSWER 24 OF 47 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1989-167055 [23] WPIDS
DOC. NO. NON-CPI: N1989-127581
DOC. NO. CPI: C1989-074125
TITLE: Recombinant interleukin 2 derivs. - having a C-terminal fused peptide extension for attachment of e.g. a support, carrier, antibodies, toxins or drugs.
DERWENT CLASS: B04 D16 P34
INVENTOR(S): DEVRIES, Y L; ROBB, R J; SIMON, P; WHITE, C T
PATENT ASSIGNEE(S): (DUPO) DU PONT DE NEMOURS & CO E I; (DUPO) DU PONT MERCK PHARMACEUTICAL CO
COUNTRY COUNT: 21
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 319012	A	19890607	(198923)*	EN	19
R: AT BE CH DE ES FR GB GR IT LI LU NL SE					
AU 8826350	A	19890608	(198931)		
NO 8805389	A	19890626	(198931)		
DK 8806737	A	19890605	(198934)		
FI 8805628	A	19890605	(198936)		
PT 89121	A	19890914	(198941)		
JP 02000300	A	19900105	(199007)		
HU 50506	T	19900228	(199016)		
ZA 8808978	A	19900725	(199035)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 319012	A	EP 1988-120114	19881202
JP 02000300	A	JP 1988-304265	19881202
ZA 8808978	A	ZA 1988-8978	19881130

PRIORITY APPLN. INFO: US 1987-128931 19871204
AN 1989-167055 [23] WPIDS
AB EP 319012 A UPAB: 19931118
A polypeptide having the amino acid sequence of human IL2 immoblised on a solid support is claimed, having the ability to bind an IL2 receptor (IL2R), to stimulate proliferation or growth of T cells and generate LAK cells.

Pref the polypeptide has the amino acid sequence of human IL2 and a carboxyl-terminal peptide extension. Pref the carboxyl-terminal fused peptide extension is GGGKKDKKDKKDLE. The polypeptide may be attached to biotin, the support attached to avidin or streptavidin and the polypeptide immobilised on the support through binding of biotin to avidin or streptavidin.

Also claimed is a polypeptide consisting of a segment having the amino acid sequence of human IL2 and a carboxyl-terminal fused peptide extension and having the ability to bind an IL2R, stimulate proliferation or growth of T cells and generate LAK cells.

USE/ADVANTAGE - The IL2 can be fused via its C-terminus with polypeptide domains that enhance serum retention, reduce toxicity reduce immunogenicity or facilitate targeting to specific cells or organs. The increase in molecular size may reduce renal excretion and enhance serum retention time. The C-terminal extension can facilitate the chemical derivatisation in a biologically active state. The IL2 may be **conjugated** to e.g. **carrier proteins, antibodies**, toxins, haptens, hormones, **enzymes**, drugs, a component of a non-immune binding pair, metal chelating agent or photoactive/photoreactive cpds.
Dwg.0/1

L7 ANSWER 25 OF 47 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1989-131684 [18] WPIDS
DOC. NO. NON-CPI: N1989-100304
DOC. NO. CPI: C1989-058251
TITLE: Hetero bifunctional coupling reagents - useful for conjugating proteins to proteins, e.g. antibody to enzyme or proteins to solid phases.
DERWENT CLASS: B03 B04 D16 S03
INVENTOR(S): BARNES, G; BIENIARZ, C; SCHLESINGE, C A; WELCH, C J; SCHLESINGER, C A
PATENT ASSIGNEE(S): (ABBO) ABBOTT LAB
COUNTRY COUNT: 17
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 314127	A	19890503	(198918)*	EN	22
R: AT BE CH DE ES FR GB GR IT LI LU NL SE					
AU 8824411	A	19890713	(198935)		
JP 01201158	A	19890814	(198938)		
US 4994385	A	19910219	(199110)		9
US 5002883	A	19910326	(199115)		8
US 5063109	A	19911105	(199147)		8
US 5053520	A	19911001	(199205)		9
EP 314127	B1	19940803	(199430)	EN	36
R: AT BE CH DE ES FR GB GR IT LI LU NL SE					
DE 3850931	G	19940908	(199435)		
ES 2060636	T3	19941201	(199504)		
CA 1340387	C	19990209	(199917)		
JP 2964407	B2	19991018	(199949)		15

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 314127	A	EP 1988-117918	19881027
JP 01201158	A	JP 1988-275988	19881029
US 4994385	A	US 1988-246971	19880922
US 5002883	A	US 1988-254288	19881011
US 5063109	A	US 1989-402013	19890901
US 5053520	A	US 1989-402012	19891001
EP 314127	B1	EP 1988-117918	19881027

Searcher : Shears 308-4994

DE 3850931	G	DE 1988-3850931	19881027
		EP 1988-117918	19881027
ES 2060636	T3	EP 1988-117918	19881027
CA 1340387	C	CA 1988-581349	19881026
JP 2964407	B2	JP 1988-275988	19881029

FILING DETAILS:

PATENT NO	KIND		PATENT NO
DE 3850931	G	Based on	EP 314127
ES 2060636	T3	Based on	EP 314127
JP 2964407	B2	Previous Publ.	JP 01201158

PRIORITY APPLN. INFO: US 1987-114930 19871030; US 1988-246971 19880922; US 1988-254288 19881011

AN 1989-131684 [18] WPIDS

AB EP 314127 A UPAB: 19930923

Heterobifunctional reagents of formula (I) are new (X = an opt. substd. amino acid having 3-10C atoms in a straight chain; R = alkyl, cycloalkyl, alkyl-cycloalkyl or an aromatic carbocyclic ring; n = 1-10). Conjugates are claimed of formulae (1-5) where B = an enzyme label, an antibody or antibody fragment; Q = an antibody or antibody fragment when B = an enzyme label or an enzyme label when B = an antibody or antibody fragment; Q1 = hapten; B1 = a polyamino acid; r = 1-20; Q2 = an enzyme or antibody; B2 = an enzyme when Q2 is an antibody and B2 is an antibody when Q2 is an enzyme; p = 2-50; B3 = an amine bearing solid phase material; Q3 = SH or a thiol bearing peptide, polypeptide or protein.

USE/ADVANTAGE - The reagents are used to link solid phases to substances such as proteins, antibodies and antigens. The conjugates are hydrophilic, so they tend to be quite stable in aq. solns. and they preserve the conformation of such substances when linked to solid phases. The linking gps. are of such lengths that the solid phases tend not to interfere with binding sites on such substances. The reagents can also be used for conjugating proteins to proteins, e.g. antibodies to enzymes and for prepg. immunogens using these coupling agents, the normal activity of the antibody, enzyme or protein is retained.

0/0

ABEQ US 4994385 A UPAB: 19930923

A conjugate has formula (I), where Z is an enzyme label or an antibody (fragment); Q is an antibody (fragment) when Z is an enzyme label and vice versa; X is a 3-10C amino acid linear chain; R is (alkyl)cycloalkyl, pref. cyclohexyl-Me; n is 3-10, pref. 3-5, esp. 3.

X is pref. a polyamide formed of repeating units of 6-aminocaproic acid. Z is alkaline phosphatase or horseradish peroxidase or is goat-anti-rabbit IgG. Q is anti-AFP-, anti-CEA-or anti-TSH-antibody or bovine gamma globulin or is beta-galactosidase or alkaline phosphatase.

ADVANTAGE - The bioactivity of the enzyme-antibody conjugate is less limited than of known ones making it more useful for immunoassays.

ABEQ US 5002883 A UPAB: 19930923

A conjugate has formula (1), where Q is a thiol bearing (poly)peptide or protein, pref. a hepatitis antigen, esp. a hepatitis B core antigen, an enzyme, esp. a beta-galactosidase, or

an antibody, esp. an anti-CA 125 antibody; Z is an amine bearing solid phase material, pref. an amine bearing microparticle; X is a linear 3-10 C amino acid, pref. including aminocaproyl; R is cycloalkyl or aryl, pref. cyclohexyl-Me.

ADVANTAGE - The bioactivity and stability of derived solid phases is no longer hindered by steric crowding, inaccessibility of binding sites, etc. @@

ABEQ US 5053520 A UPAB: 19930923

Heterobifunctional maleimido gp. contg. cpds. of formula (I) are new. In (I), X is 3-10C straight chain aminoacid R is cycloalkyl or alkylcycloalkyl and n is 3-10. X is pref. a polyamide formed from 6-amino-caproic acid repeat units.

USE/ADVANTAGE - Used for linking 2 proteins (claimed) and for **conjugating enzymes** to **antibodies** and haptens to hapten **carriers**. The normal activity of the proteins, enzymes and haptens is retained in the conjugates. The conjugates have good stability. The conjugates may be used in diagnostic assays.

ABEQ US 5063109 A UPAB: 19930923

Chemically derivatised solid phases material has formula (I) B is amine bearing solid phase material; X is a (3-10C) straight-chain contg. amino acid; n is 1-10; and R is alkyl, cycloalkyl, alkyl-cycloalkyl, or aromatic carbocyolic ring.

Pref. R is cyclohexylmethyl; B is an amino bearing microparticle, and X is aminocaproyl. Solid phase comprises a fibre.

USE - In diagnostic assays between a specific binding member and its complement. @@

ABEQ EP 314127 B UPAB: 19940914

A hetero bifunctional reagent comprising (1) wherein X is an amino acid having from three to ten carbon atoms in a straight chain; R is an alkyl of one to six carbon atoms, cycloalkyl, alkyl-cycloalkyl wherein said alkyl has from one to six carbon atoms; or phenyl; and n is from one to ten.

Dwg.0/0

L7 ANSWER 26 OF 47 JAPIO COPYRIGHT 2003 JPO

ACCESSION NUMBER: 1989-311275 JAPIO
TITLE: IMMUNOASSAY
INVENTOR: TSUJI TAKASHI; MORI KENJIRO; WATANABE TETSUO; YOSHIKAWA HIROSHI; KIHARA YASUO
PATENT ASSIGNEE(S): NITTO DENKO CORP
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 01311275	A	19891215	Heisei	G01N033-543

APPLICATION INFORMATION

STN FORMAT:	JP 1988-141417	19880608
ORIGINAL:	JP63141417	Showa

PRIORITY APPLN. INFO.: JP 1988-141417 19880608
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1989

AN 1989-311275 JAPIO

AB PURPOSE: To enable the simple method using a water insoluble enzyme labeled immune body by dissociating the water insoluble enzyme labeled immune body as a reagent from a carrier at the time of bringing said immune body into reaction with a material to be

inspected.
CONSTITUTION: An antigen or hapten or **antibody** labeled with **enzyme** is **conjugated** with the insoluble **carrier conjugated** with a material which can reversibly conjugate the enzyme. The enzyme labeled immune body is dissociated from the carrier by adding a dissociating agent thereto at the time of using the water insoluble enzyme labeled immune body obtd. in such a manner as the reagent and bringing the corresponding antigen or hapten or antibody as the material to be inspected into reaction. The simple measurement is thus executed.

L7 ANSWER 27 OF 47 MEDLINE DUPLICATE 13
ACCESSION NUMBER: 89391116 MEDLINE
DOCUMENT NUMBER: 89391116 PubMed ID: 2675696
TITLE: Detection of Salmonella dublin mammary gland infection in **carrier** cows, using an **enzyme-linked** immunosorbent assay for **antibody** in milk or serum.
COMMENT: Erratum in: Am J Vet Res 1989 Oct;50(10):1799
Erratum in: Marvin PA[corrected to Martin PA]
AUTHOR: Smith B P; Oliver D G; Singh P; Dilling G; Martin P A; Ram B P; Jang L S; Sharkov N; Orsborn J S; Marvin P A; +
CORPORATE SOURCE: Department of Medicine, School of Veterinary Medicine, University of California, Davis 95616.
SOURCE: AMERICAN JOURNAL OF VETERINARY RESEARCH, (1989 Aug) 50 (8) 1352-60.
Journal code: 0375011. ISSN: 0002-9645.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198910
ENTRY DATE: Entered STN: 19900309
Last Updated on STN: 19900309
Entered Medline: 19891020

AB An ELISA has been developed for measurement of milk and serum IgG concentrations directed against Salmonella dublin. Four groups of cows were studied: group A--7 experimentally challenge-exposed cows (infected, recovered group); group B--6 normal uninfected randomly selected control cows; group C--7 naturally occurring S dublin carrier cows; and group D--6 normal uninfected S dublin negative cows from the same herd as group C. Group-A cows were inoculated orally, or inoculated orally and then IV, but none became a S dublin carrier. As expected, all 7 group-A cows responded with a marked increase in ELISA titer after oral exposure to virulent S dublin, starting with a mean serum titer of 17.7% and reaching a peak mean serum titer of 79.3% approximately 76 days after initial exposure. As determined by necropsy and organ culturing of the remaining cows, none of the group-A cows became carriers. The mean serum ELISA titer for group-B uninfected control cows was 14.1% (SD +/- 12.8%). The mean milk ELISA titer was -1.0% (SD +/- 5.5%). Colostrum and then milk gave false-positive results for up to 2 weeks after onset of lactation. Group-B cows were culture negative for S dublin in feces and milk during lactation, and when tissues were cultured after euthanasia. Milk and serum samples for ELISA, and milk and fecal samples for culturing were taken from all group-A and -B cows twice

a week for 6 months. Statistical correlation (P less than 0.05) was found between serum and milk ELISA titers.(ABSTRACT TRUNCATED AT 250 WORDS)

L7 ANSWER 28 OF 47 MEDLINE DUPLICATE 14
ACCESSION NUMBER: 89278695 MEDLINE
DOCUMENT NUMBER: 89278695 PubMed ID: 2471745
TITLE: Preparation of antibodies to a synthetic C terminus of hirudin and identification of an antigenic site.
AUTHOR: Mao S J; Yates M T; Owen T J; Krstenansky J L
CORPORATE SOURCE: Merrell Dow Research Institute, Cincinnati, OH 45215.
SOURCE: JOURNAL OF IMMUNOLOGICAL METHODS, (1989 Jun 2) 120 (1) 45-50.
Journal code: 1305440. ISSN: 0022-1759.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198907
ENTRY DATE: Entered STN: 19900309
Last Updated on STN: 19960129
Entered Medline: 19890720

AB Hirudin is a 65 amino acid anticoagulant peptide produced in the leech. The single polypeptide is cross-linked by three disulfide linkages in the NH2 terminal half of the molecule. A peptide corresponding to the COOH terminus (residues 45-65) was synthesized utilizing lysine 47 as a specific residue to **conjugate** to thyroglobulin as a **carrier** for raising **antibodies** in mice. Using an **enzyme-linked** immunosorbent assay (ELISA) technique, it was found that the major antigenic domain(s) was located between residues 52-65. The COOH terminal residues Ile-59, Tyr-63, and Leu-64 are crucial for maintaining the antigenic structure. The NH2 terminal region (residues 45-52) that is proximal to the carrier protein, however, was not immunoreactive. A possible mechanism by which antibodies recognize the COOH terminal region of the synthetic peptide and the strategy for raising such antibodies are discussed.

L7 ANSWER 29 OF 47 JAPIO COPYRIGHT 2003 JPO
ACCESSION NUMBER: 1988-250567 JAPIO
TITLE: ENZYME IMMUNOASSAY
INVENTOR: BABA MASAHIRO; MOCHIDA SUGURU
PATENT ASSIGNEE(S): MOCHIDA PHARMACEUT CO LTD
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 63250567	A	19881018	Showa	G01N033-543

APPLICATION INFORMATION
STN FORMAT: JP 1987-85235 19870407
ORIGINAL: JP62085235 Showa
PRIORITY APPLN. INFO.: JP 1987-85235 19870407
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1988

AN 1988-250567 JAPIO
AB PURPOSE: To provide a simple method of high sensitivity and to eliminate the need for skill in decision by bringing a reagent for

measuring the activity of a conjugation type labeling material detained on a filter into reaction as it is with said labeling material and deciding the coloration by the reaction.
CONSTITUTION: A specimen contg. a material to be measured is brought into reaction with the reagent consisting of an insoluble carrier conjugated with an antibody or antigen which can be specifically conjugated with the antigen or antibody, i.e., the material to be measured and the enzyme labeling antibody or enzyme labeling antigen. At least the following three stages are in succession executed continuously on the same filter. First, the reaction liquid mixture is poured onto the filter and only the reaction liquid is absorbed in the filter. The insoluble carrier is retained and superposed on the filter to separate the enzyme labeling antibody or enzyme labeling antigen **conjugated** to the insoluble **carrier** or the unreacted **enzyme** labeling **antibody** or **enzyme** labeling antigen. The reagent for measuring the activity of the enzyme conjugated with the insoluble carrier is then added onto the filter and is retained in the spacings of the insoluble carrier superposed on the filter, by which the enzyme and the reagent are brought into reaction. The coloration by the reaction is decided by the naked eyes.

L7 ANSWER 30 OF 47 JAPIO COPYRIGHT 2003 JPO
ACCESSION NUMBER: 1988-059891 JAPIO
TITLE: IMMOBILIZATION OF SUBSTANCE
INVENTOR: KODA SEIICHI; OZAWA MASAKO; KOKAWARA ISAMU
PATENT ASSIGNEE(S): ORIENTAL YEAST CO LTD
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 63059891	A	19880315	Showa	C12N011-14

APPLICATION INFORMATION
STN FORMAT: JP 1986-201621 19860829
ORIGINAL: JP61201621 Showa
PRIORITY APPLN. INFO.: JP 1986-201621 19860829
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1988

AN 1988-059891 JAPIO
AB PURPOSE: To enable film bonding of a substance to a carrier without lowering the activity of the substance, by crosslinking a substance with a carrier using a compound having maleimide groups or a compound having both maleimide group and a succinimide ester group.
CONSTITUTION: A substance such as physiologically active substance, protein, **enzyme**, ligand, **antibody**, etc., is **crosslinked** to a **carrier** using a compound having >=2 maleimide groups in one molecule or a compound having both maleimide group and succinimide ester group in one molecule. The former compound is e.g. N,N'-(1,2-phenylene)bismaleimide, etc., and the latter compound is e.g. N-succinimidyl-N-maleimide acetate, etc. The carrier is an insoluble carrier such as agarose, glass, alumina, etc., and, if necessary, SH group or amino group may be introduced to the carrier.

L7 ANSWER 31 OF 47 JAPIO COPYRIGHT 2003 JPO

ACCESSION NUMBER: 1988-012961 JAPIO
TITLE: REAGENT FOR MEASURING TRYPSIN
INVENTOR: HAYAKAWA SHINOBU; KATO KENJI
PATENT ASSIGNEE(S): KODAMA KK
MARUKO SEIYAKU KK

PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 63012961	A	19880120	Showa	G01N033-535

APPLICATION INFORMATION
STN FORMAT: JP 1986-155940 19860704
ORIGINAL: JP61155940 Showa
PRIORITY APPLN. INFO.: JP 1986-155940 19860704
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1988

AN 1988-012961 JAPIO
AB PURPOSE: To make enzyme immunological measurement of the trypsin in a bodily fluid without using a radioactive material by using an enzyme labeled antibody formed by covalent bonding of an antitrypsin **antibody** with **enzyme** and antitrypsin **antibody conjugated carrier** as a reagent.
CONSTITUTION: For example, human trypsin is sensitized with a domestic rabbit to prepare the antihuman-trypsin antibody. The antihuman-trypsin antibody is then physically adsorbed to an insoluble carrier such as polystyrene bead to obtain the antihuman-trypsin **antibody conjugated carrier**. Labeling **enzyme** and compd. optimum for the labeling enzyme are added to the antihuman-trypsin antibody to effect reaction and to obtain the enzyme labeled antibody. Peroxidase, etc., are used for said enzyme and glutaraldehyde, etc., are used for said compd. Since the antihuman-trypsin **conjugated** insoluble **carrier** and the labeling **enzyme** antihuman-trypsin **antibody** are used as the reagent, the trypsin in serum is measurable with good accuracy and the correct diagnosis of a pancreatic disease is possible.

L7 ANSWER 32 OF 47 BIOSIS
ACCESSION NUMBER: 1988:288835 BIOSIS
DOCUMENT NUMBER: BA86:17102
TITLE: DIETHYLSTILBESTROL ENZYME IMMUNOASSAY.
AUTHOR(S): LELIEVRE H; MAMAS S; GLEDEL J; DRAY F
CORPORATE SOURCE: MINISTERE L'AGRIC., DIRECTION GEN. L'ALIMENTATION, LAB. CENTRAL D'HYGIENE ALIMENTAIRE, 43 RUE DE DANTZIG, 75015 PARIS, FRANCE.
SOURCE: SCI ALIMENTS, (1988) 8 (1), 149-170.
CODEN: SCALDC. ISSN: 0240-8813.
FILE SEGMENT: BA; OLD
LANGUAGE: French
AB Anabolic hormones are used extensively in the farming industry to increase growth rate and food conversion by meat producing animals. Among these compounds a synthetic hormone, Diethylstilbestrol (DES) has been shown to be carcinogen in human medical practice, for this reason, the stilbenes group have been banned throughout France in 1976 and EEC in 1981. DES was chosen as a model for the preparation

of an hapten-**carrier protein** and hapten-**enzyme conjugates**. After the coupling procedure the selected enzymatic conjugates DES monoglucuronide-.beta. galactosidase retains 100% of its catalytic activity and 67% of its immunoreactivity. An antiserum raised in rabbit against DES monobutyrate-serum albumine bovine and showed significant cross reactivity with hexestrol and dinestrol, and thus may used for a general screening for stilbenes. Another antiserum was raised in rabbits against DES monoglucuronide and do not cross react with other stilbenes. We selected a competitive assay in which the unlabelled antigen and antigen linked to an enzyme compete for a limited number of antibody binding sites. The technical procedure is performed in two incubation steps: an overnight incubation between antibody and DES standard (or sample) followed by a four hours incubation with enzymatic tracer. The separation of antibody bound and free fraction is accomplished by immunoprecipitation of the primary antibody with the second antibody directed against rabbit IgG. This Ab2 is coupled covalently with magnetic beads (Ab2-Magnogel), easily separated by application of a magnetic field. After washing the complex is incubated at 45.degree.C with a solution containing the enzyme substrate. Subsequently the enzyme reaction is stopped and the product concentration is determined using a colorimeter (OD = 420 nm). urine samples from test animals (positive and negative) were analyzed directly without extraction nor purification. Some "false positives" could occur in darkly coloured urine the interfering substances (feeding or veterinary medicines) are eliminated with the dilution of the urine. Since DES is banned, the response is simply positive or negative. It is thus necessary to select a specific minimum "cut off" level above which samples will be identified as positives, when 5-10 ppb is used as "cut off" for darkly coloured urines, false positives are virtually eliminated then for "clear" urines this cut off is estimated to 2-5 ppb.

L7 ANSWER 33 OF 47 JAPIO COPYRIGHT 2003 JPO
ACCESSION NUMBER: 1987-261960 JAPIO
TITLE: LABELED IMMUNE CARRIER AND ITS USING METHOD
INVENTOR: NAITO MASAHIRO; SUZUKI TAKASHI; HAMAOKA AKIRA; NAKAMURA TAKEKI
PATENT ASSIGNEE(S): SHINOTESUTO KENKYUSHO:KK
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 62261960	A	19871114	Showa	G01N033-543

APPLICATION INFORMATION
STN FORMAT: JP 1986-103830 19860508
ORIGINAL: JP61103830 Showa
PRIORITY APPLN. INFO.: JP 1986-103830 19860508
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1987
AN 1987-261960 JAPIO
AB PURPOSE: To manufacture a labeled immune **carrier** which obviates the deterioration in **antibody** activity and **enzyme** activity without directly **conjugating** the antibody and enzyme by conjugating both of the antibody and enzyme corresponding to a material to be examined to a pulverized particle

carrier insoluble in water.
CONSTITUTION: Both of the antibody and enzyme corresponding to the material to be examined are conjugated to the carrier consisting the pulverized particles (<=100μm, more preferably <=10μm grain size) of an org. high-polymer material, etc. An antibody formed by fractionating an antiserum to the material to be examined by 18% sodium sulfate or an antibody refined by using an ion exchange resin is used for the antibody for the material to be examined. There are no particular limitations for the enzyme, and the enzyme which permits the easy measurement of the enzyme activity, has high activity and permits easy handling is used for the same. A hydrophobic substituent is introduced to the relatively hydrophilic enzyme. The labeled immune carrier is obtd. by simultaneously or successively mixing the enzyme and antibody with latex particles to conjugate the same and cleaning the mixture with a buffer soln, then subjecting the mixture to a blocking treatment.

L7 ANSWER 34 OF 47 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1986-322230 [49] WPIDS
CROSS REFERENCE: 1987-076897 [11]
DOC. NO. CPI: C1986-139425
TITLE: Selective extraction of di aldehyde(s) from oxo-reaction product(s) - using 5-7C satd. alicyclic hydrocarbon(s).
DERWENT CLASS: A60 A96 B04 D16 E17
PATENT ASSIGNEE(S): (KURS) KURARAY CO LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 61238751	A	19861024	(198649)*		8
JP 06062479	B2	19940817	(199431)		8
JP 06062480	B2	19940817	(199431)		11

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
JP 61238751	A		JP 1985-157802	19850415
JP 06062479	B2	Div ex	JP 1985-80767	19850415
			JP 1985-157802	19850415
JP 06062480	B2		JP 1986-80347	19860407

FILING DETAILS:

PATENT NO	KIND		PATENT NO
JP 06062479	B2	Based on	JP 61238751
JP 06062480	B2	Based on	JP 62030734

PRIORITY APPLN. INFO: JP 1985-80767 19850415; JP 1985-157802 19850415; JP 1986-80347 19860407
AN 1986-322230 [49] WPIDS
CR 1987-076897 [11]
AB JP 61238751 A UPAB: 19940928
Sepn. of dialdehyde(s) of formula (I) from aq. sulpholane soln.

comprises extracting with 5-7C satd. alicyclic hydrocarbon(s) at above 4U deg. C.

OHC-E1-(CH2)m-E2-CHO (I)

E1 and E2 are independently ethylene or ethylidene gps. and m is 2 to 6.

Ratio of sulpholane/water is maintained at 75/25 or less to extract (I) efficiently. Extraction is carried out at 40-110 deg. C, pref. 50-100 deg. C. Cyclopentane, cyclohexane or methylcyclohexane etc. can be used as extracting solvent.

USE/ADVANTAGE - (I) is extracted efficiently, and residue can be repeatedly used as catalytic layer. Extracted (I) is purified and used as fine chemicals, e.g., binder for **peptide**(s) and/or **enzyme** to **carrier**, bactericide(s) or **crosslinking** agent(s) etc.. (I) can be also used to produce corresp. diol(s), dicarboxylic acid(s) or diamine(s) etc..

0/0

Dwg.0/0

L7 ANSWER 35 OF 47 JAPIO COPYRIGHT 2003 JPO

ACCESSION NUMBER: 1986-112042 JAPIO
TITLE: COMPOUND SUITABLE AS CROSSLINKING REAGENT
INVENTOR: ONISHI MIKIO; YAMADA HIDENORI; SUGIMOTO HIROYUKI
PATENT ASSIGNEE(S): WAKUNAGA SEIYAKU KK
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 61112042	A	19860530	Showa	C07C059-21

APPLICATION INFORMATION

STN FORMAT:	JP 1985-169109	19850731
ORIGINAL:	JP60169109	Showa

PRIORITY APPLN. INFO.: JP 1985-169109 19850731
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1986

AN 1986-112042 JAPIO

AB NEW MATERIAL:A compound shown by the formula I [R<SP>1</SP> is ACH<SB>2</SB> and R<SP>2</SP> is (CH<SB>2</SB>)<SB>m</SB>COO(Y), or NH(CH<SB>2</SB>)<SB>m</SB>COOY; or R<SP>1</SP> is (Y)OCO(CH<SB>2</SB>)<SB>n</SB>, and R<SP>2</SP> is NH (CH<SB>2</SB>)<SB>m</SB>COO(Y); A is Cl, Br, or I; COOY is active ester; COO(Y) is COOH, or COOY; m is 1∼6; n is 1∼4; plural COO(Y) are the same or different].

EXAMPLE: 5-Bromolevulinic acid.

USE: Useful as a crosslinking reagent. Useful for carrying out effectively **crosslinking** between **carrier protein** and haptene, haptene and **enzyme**, high polymer antigen and enzyme, enzyme and antibody, etc. Applicable in a wide range for preparing artificial antigen to yield specific antibody for various substances.

PREPARATION: For example, levulinic acid is halogenated with a halogenous simple substance in a methanol solution, a methyl ester of the reaction product is hydrolyzed to give a compound shown by the formula II wherein m is 2 in the formula I.

L7 ANSWER 36 OF 47 WPIDS (C) 2003 THOMSON DERWENT

ACCESSION NUMBER: 1985-046383 [08] WPIDS

DOC. NO. NON-CPI: N1985-034528
DOC. NO. CPI: C1985-020142
TITLE: Reagent for measuring lipase in body fluid - comprises enzyme-labelled antibody.
DERWENT CLASS: B04 D16
PATENT ASSIGNEE(S): (MARZ) MARUKO SEIYAKU KK; (SUGI-N) SUGIURA SHINYAKUKAI
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 60003551	A	19850109	(198508)*		7

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 60003551	A	JP 1983-110200	19830621

PRIORITY APPLN. INFO: JP 1983-110200 19830621
AN 1985-046383 [08] WPIDS
AB JP 60003551 A UPAB: 19930925
Reagent comprises enzyme-labelled antibody in which anti-human pancreatic lipase antibody induced by the antigen of purified human pancreatic lipase is covalently **linked** with **enzyme**, and anti-human pancreatic lipase **antibody linked carrier** (insoluble antibody) in which purified anti-human pancreatic lipase antibody is covalently bonded or physically absorbed with an insoluble carrier.
USE/ADVANTAGE - Reagent has 50-10,000 times higher sensitivity than other enzyme immunoassays. Problems of radioimmunoassay are avoided. Used partic. for diagnosing pancreatitis.
0/0

L7 ANSWER 37 OF 47 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1984-276054 [44] WPIDS
CROSS REFERENCE: 1983-820728 [46]; 1990-192929 [25]
DOC. NO. NON-CPI: N1984-206010
DOC. NO. CPI: C1984-117067
TITLE: Detecting cancer by measuring amt. of threonine modified nucleoside - excreted in the urine, esp. by immunoassay with new monoclonal antibody.
DERWENT CLASS: B04 D16 J04 S03
INVENTOR(S): VOLD, B S
PATENT ASSIGNEE(S): (STRI) SRI INT
COUNTRY COUNT: 6
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 8404168	A	19841025	(198444)*	EN	26
RW: FR					
W: DE GB JP SE					
SE 8406416	A	19841217	(198510)		
DE 3490001	T	19850418	(198517)		
EP 138946	A	19850502	(198518)	EN	

R: FR				
GB 2150690	A	19850703	(198527)	
JP 60501075	W	19850711	(198534)	
US 4665018	A	19870512	(198721)	
GB 2150690	B	19870701	(198726)	
EP 138946	B	19891206	(198949)	EN
R: FR				
DE 3490001	C2	19940609	(199421)	9

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 8404168	A	WO 1984-US338	19840305
DE 3490001	T	DE 1984-3490001	19840305
EP 138946	A	EP 1984-901475	19840305
GB 2150690	A	GB 1984-30629	19840305
JP 60501075	W	JP 1984-501552	19840305
US 4665018	A	US 1983-532998	19830916
DE 3490001	C2	DE 1984-3490001	19840305
		WO 1984-US338	19840305

FILING DETAILS:

PATENT NO	KIND		PATENT NO
DE 3490001	C2	Based on	WO 8404168

PRIORITY APPLN. INFO: US 1983-532998 19830916; WO 1983-US579 19830418

AN 1984-276054 [44] WPIDS

CR 1983-820728 [46]; 1990-192929 [25]

AB WO 8404168 A UPAB: 19940803

Cancer is detected in humans by determining the amt. of N-(9-(beta-D-ribofuranosyl)purine-6-ylcarbamoyl)-L-threonine (I) in the urine. The measured value is compared with a standard value of (I) content in normal urine. By periodic determination of (I), the status of cancer can be monitored. In a more general process, the amt. of underivatised modified nucleoside (excreted in elevated concns. by cancer patients) is determined in unfractioned urine samples.

The hybridoma ATCC HB 8351 and monoclonal antibody (Ab), or its functional equivalents, prod. by this hybridoma.

USE/ADVANTAGE - The method can detect any type of cellular neoplasm, esp. non-Hodgkin's lymphoma or solid tumours. It provides early diagnosis; evaluation of status following treatment and identification of metastases. This process does not require preliminary sepn. of (I) by h.p.l.c. or derivatisation.

0/3

Dwg.0/3

ABEQ EP 138946 B UPAB: 19930925

1. A method for monitoring the status of cancer in a human cancer patient characterized by (a) obtaining urine specimens from the patient at different times; (b) determining the amounts of N-(9-(beta-D-ribofuransoyl)purin-6-vicarbamoyl)-L-threonine (t6A) in the specimens; and (c) comparing the amounts, an increase in amount being an indication of increased tumour burden and a decrease in amount being an indication of decreased tumour burden.

1/3

ABEQ GB 2150690 B UPAB: 19930925

A method for monitoring the status of cancer in a human cancer patient, characterised by: (a) obtaining urine specimens from the patient at different times; (b) determining the amounts of N-(9-(-D-ribofuranosyl) purin-6-ylcarbamoyl)-L- threonine (t6A) in the specimens; and (c) comparing the amounts.

ABEQ US 4665018 A UPAB: 19930925

Cancer in a human is indicated by the detection of an amt. of N-(9-(beta-D-ribofuranosyl) purin-6-yl carbamoyl) L-theonin (I) in the urine substantially greater than normal. The status of cancer can be monitored by testing urine samples taken at intervals for (I). Any increase or decrease in the amt. of (I) indicates an increase or decrease respectively of tumour burden. Measurements may be by quantitative immunoassay or competitive inhibition enzyme linked immunosorbent assay, involving use of antibody against (I), e.g. monoclonal antibody produced by hybridoma ATCC HB 8351.

USE - The cancer is e.g. a non-Hodgkins lymphoma or solid tumour.

ABEQ DE 3490001 C UPAB: 19940715

Diagnosing or monitoring cancer comprises measuring the amt. of a modified nucleoside(I) in a sample of body fluid, and comparing the results with the amt. measured in a normal portion (diagnosis) or the amts. in samples measured previously (monitoring).

The modified nucleoside is N-(9-(beta-D-ribofuranosyl purin-6-yl carbamoyl)-L-threonine (t6A). It is measured using a monoclonal antibody from the hybridoma ATCC HB 825).

Pref. (I) is estimated by radio- or **enzyme** -immunoassay, esp. by incubating the **antibody** with t6A-protein **carrier conjugate** bound to a solid phase, and incubating with an enzyme-labelled antibody to the antibody.

ADVANTAGE - The process is non-invasive and is more reproducible.

Dwg.1/3

L7 ANSWER 38 OF 47 WPIDS (C) 2003 THOMSON DERWENT

ACCESSION NUMBER: 1985-005983 [01] WPIDS

DOC. NO. CPI: C1985-002558

TITLE: Activated polypeptide ester formation in solid phase synthesis - by reaction with cyclic carboxylic acid anhydride and a phenol or N-hydroxy succinimide.

DERWENT CLASS: A96 B04 D16

INVENTOR(S): BHATNAGAR, P K; NITECKI, D E

PATENT ASSIGNEE(S): (REGC) UNIV CALIFORNIA

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 4487715	A	19841211	(198501)*		6

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 4487715	A	US 1982-396578	19820709

PRIORITY APPLN. INFO: US 1982-396578 19820709
AN 1985-005983 [01] WPIDS
AB US 4487715 A UPAB: 19930925
In the solid phase method of polypeptide synthesis in which aminoacids are sequentially linked to an aminoacid bound through an ester group to a 4-alkoxybenzyl alcohol resin or chloromethyl resin, the peptide linked to the resin is reacted with a cyclic carboxylic anhydride to form an amide and a free carboxy gp. This free carboxy gp. is esterified with a 4-hydroxy-3-nitrobenzenesulphonic acid salt, pentachlorophenol N-hydroxysuccinimide or p-nitrophenol to form an active ester gp. on the cleaved peptide capable of forming peptide linkages in aq. media.

The peptide is cleaved from the resin with HF or CF3COOH to give a mixture of the peptide and resin in an acid soln. The solution is neutralised to mildly basic pH in the presence of a cpd. or peptide having a free amino gp. to cause the peptide with the activated ester gp. to form amide gps. with itself, with another peptide or with the amine gp. contg. cpd.

USE - The process enables specific **peptides** to be **linked** to **carriers, enzymes** or insoluble matrices in a precise manner without crosslinking and thus modification of the carrier. This is useful in the fields of vaccine and antibody prodn., immunoassays and separation techniques.
0/0

L7 ANSWER 39 OF 47 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1984-076739 [13] WPIDS
DOC. NO. CPI: C1984-032765
TITLE: Imparting enzyme activity to protein - by denaturing **protein** in presence of **enzyme** inhibitor and **crosslinking** in **carrier**.
DERWENT CLASS: B04 D16
INVENTOR(S): KEYES, M H
PATENT ASSIGNEE(S): (OWEI) OWENS-ILLINOIS INC
COUNTRY COUNT: 9
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
DE 3329696	A	19840322	(198413)*		70
GB 2127026	A	19840404	(198414)		
FR 2533218	A	19840323	(198417)		
AU 8314551	A	19840322	(198419)		
JP 59055188	A	19840330	(198419)		
BR 8304951	A	19840522	(198428)		
GB 2127026	B	19860122	(198604)		
CA 1200519	A	19860211	(198611)		
DE 3329696	C	19870903	(198735)		
US 4714676	A	19871222	(198801)		
IT 1172306	B	19870618	(199006)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

DE 3329696	A		DE 1983-3329696	19830817
GB 2127026	A		GB 1983-14853	19830527
FR 2533218	A		FR 1983-14697	19830915
JP 59055188	A		JP 1983-132996	19830722
US 4714676	A		US 1983-476955	19830321

PRIORITY APPLN. INFO: US 1982-419116 19820916; US 1983-476955 19830321

AN 1984-076739 [13] WPIDS

AB DE 3329696 A UPAB: 19930925

Prodn. of a modified protein (I) having enzymatic activity imitating that of a selected enzyme (II) is effected by (a) partially denaturing a native protein (III) in the presence of an inhibitor of (II), (b) adsorbing the resulting protein-inhibitor complex on a solid carrier, and (c) crosslinking the prod. Also claimed are similar process in which the above operations are performed in a different order.

(III) may be, e.g., bovine serum albumin (BSA) or an enzyme whose activity is to be modified, e.g. ribonuclease or catalase.

The process can be used to produce enzymatically active substances from inexpensive proteins, e.g. in cases where the corresp. natural enzyme is in short supply or expensive to isolate. The prods. may be used, e.g., as biological catalysts.

0/0

ABEQ DE 3329696 C UPAB: 19930925

Prepn. of proteins with modified activity as enzyme substrates comprises partial denaturation of highly purified natural protein in the presenc e of an enzyme inhibitor which has a similar structure to that of the natural substrate for the enzyme; adsorption on a solid carrier; treatment with a crosslinking agent; and removal of excess crosslinking agent and inhibitor. Alternatively the protein is first adsorbed on the carrier, then partially denaturised, followed by cross-linking in the presence of the enzyme inhibitor. Pref. crosslinking agents are glutaraldehyde and ethyl-3-(3-dimethylaminopropyl)carbodiimide.

USE - The prods. are reactants for the prepn. of nutrients, foods and drinks, and also components for pharmaceuticals and industrial biochemical synthesis.

ABEQ GB 2127026 B UPAB: 19930925

A process for chemically altering the substrate specificity of a native protein to produce an immobilised enzyme-like protein comprising: (a) selecting an enzyme to be modelled; (b) partially denaturing a native protein in the presence of a competitive inhibitor for said model enzyme to form a partially denatured native protein-model enzyme inhibitor complex; (c) contacting said partially denatured protein-model enzyme inhibitor complex with a solid support for a time sufficient and at a temperature sufficient to absorb and immobilise said partially denatured protein-model enzyme inhibitor complex on said solid support; and (d) crosslinking said absorbed, immobilised protein-model enzyme inhibitor complex to form an immobilised enzyme-like modified protein having the biological activity of said model enzyme.

ABEQ US 4714676 A UPAB: 19930925

Substrate specificity of a nature protein is chemically altered produce immobilised enzyme-like modified protein.

Process comprises (a) selecting an enzymer to be modelled; (b) partially denaturing nature protein using an inhibitor for this

enzyme to form partially-denatured native protein model enzyme inhibitor complex; (c) contacting this with a solid support for a time and at a temp to absorb and immobilise the complex; and (d) cross-linking absorbed immobilised complex to form an immobilised enzyme-like prod. Pref. partial denaturation comprises forming an e.g. soln. and maintaining until denaturation occurs, opt. using a denaturing agent.

ADVANTAGE - Is stable, easily-recoverable and recyclable, performing catalytic anabolic and catabolic reactions instead of naturally-occurring enzyme.

L7 ANSWER 40 OF 47 MEDLINE DUPLICATE 15
ACCESSION NUMBER: 85030862 MEDLINE
DOCUMENT NUMBER: 85030862 PubMed ID: 6386851
TITLE: Polycarbonate-coated microsticks as solid-phase **carriers** in an **enzyme-linked** immunosorbent assay for rubella **antibody**.
AUTHOR: Shekarchi I C; Tzan N; Sever J L; Madden D L
SOURCE: JOURNAL OF CLINICAL MICROBIOLOGY, (1984 Sep) 20 (3) 305-6.
Journal code: 7505564. ISSN: 0095-1137.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198412
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 19970203
Entered Medline: 19841203

AB We evaluated the use of microsticks as solid-phase **carriers** in an **enzyme-linked** immunosorbent assay for rubella **antibody**. The microstick enzyme-**linked** immunosorbent assay was found to be equal in sensitivity to plate and disk enzyme-linked immunosorbent assays and presumably more sensitive than hemagglutination and immunofluorescence assays. The microstick as a solid-phase carrier offers advantages over both plate and bead carriers.

L7 ANSWER 41 OF 47 MEDLINE DUPLICATE 16
ACCESSION NUMBER: 84136256 MEDLINE
DOCUMENT NUMBER: 84136256 PubMed ID: 6199371
TITLE: Evaluation of various plastic microtiter plates with measles, toxoplasma, and gamma globulin antigens in enzyme-linked immunosorbent assays.
AUTHOR: Shekarchi I C; Sever J L; Lee Y J; Castellano G; Madden D L
SOURCE: JOURNAL OF CLINICAL MICROBIOLOGY, (1984 Feb) 19 (2) 89-96.
Journal code: 7505564. ISSN: 0095-1137.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198404
ENTRY DATE: Entered STN: 19900319
Last Updated on STN: 19900319
Entered Medline: 19840425

AB Seventeen lots of microtiter plates which differed in lot, batch, plastic type, or manufacturer were evaluated as solid-phase **carriers** in **enzyme-linked** immunosorbent assays for **antibodies** to measles, toxoplasma, and human gamma globulin. Most plates of polystyrene or polyvinyl chloride were found to give acceptable binding. The final choice depended on the antigen to be attached. Variations in binding between lots, batches, and types of plastic were found. Well-to-well variation was found to be of greater statistical significance than edge effect and should be a consideration in selection of a plate lot for enzyme-linked immunosorbent assays. Lots of plates should be pretested by the investigator to determine whether there is good binding of the antigen to be used and whether there is low plate-to-plate and well-to-well variation.

L7 ANSWER 42 OF 47 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1984:44689 BIOSIS
DOCUMENT NUMBER: BR26:44689
TITLE: POLY CARBONATE COATED MICRO STICKS AS SOLID PHASE **CARRIERS** IN **ENZYME LINKED** IMMUNOASSAY FOR RUBELLA **ANTIBODY**.
AUTHOR(S): SHEKARCHI I C; TZAN N; SEVER J
CORPORATE SOURCE: NINCDS, NIH, BETHESDA, MD. 20205.
SOURCE: 83RD ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, NEW ORLEANS, LA., USA, MAR. 6-11, 1983. ABSTR ANNU MEET AM SOC MICROBIOL, (1983) 83 (0), C116.
CODEN: ASMACK. ISSN: 0094-8519.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L7 ANSWER 43 OF 47 JAPIO COPYRIGHT 2003 JPO
ACCESSION NUMBER: 1982-131062 JAPIO
TITLE: QUANTITATIVE DETERMINATION OF ANTIGEN USING ENZYME- LABELLED ANTIGEN AND SECOND ANTIBODY INSOLUBILIZING CARRIER
INVENTOR: KATO KANEFUSA; KOSAKA AKIRA; YAMAMOTO RYOHEI; MATSUURA AKIRA; INUKAI TADAHIKO
PATENT ASSIGNEE(S): AMANO PHARMACEUT CO LTD
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 57131062	A	19820813	Showa	G01N033-54

APPLICATION INFORMATION
STN FORMAT: JP 1981-15013 19810205
ORIGINAL: JP56015013 Showa
PRIORITY APPLN. INFO.: JP 1981-15013 19810205
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1982
AN 1982-131062 JAPIO
AB PURPOSE: To determine an antigen speedily and accurately, by a method wherein free enzyme-labelled antigen is measured using a column of a second antibody insolubilizing carrier.
CONSTITUTION: An antigen to be examined and an enzyme-labelled antigen are allowed to compentitively react with antibody

immunoglobulin associated with said antigen, and the reaction liquid obtained is made to flow into a column of a second antibody insolubilizing **carrier**. The obtained **conjugate** between the **enzyme**-labelled antigen and the **antibody** immunoglobulin is attached to the column by adsorption and removed from the reaction liquid. Then the amount of free enzyme-labelled antigen remaining in the liquid phase is obtained by measuring the enzymatic activity and the amount of the antigen is determined from the value measured. Any conventional enzyme such a β- galactosidase or alkaline phosphateae may be used as labelling enzymes. For the preparation of the enzyme-labelled antigen, a bifunctional reagent such as glutaraldehyde or carbodimide may be used. As an insolubilizing carrier, it is preferable to employ polysaccharides such as agarose or dextran, resins such as polyethylene, or glass, polyacrylamide and the like.

L7 ANSWER 44 OF 47 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1981:81021 BIOSIS
DOCUMENT NUMBER: BR21:16017
TITLE: ATTACHMENT OF VIRAL AND SPOROZOAL ANTIGENS AND **ANTIBODY** TO PLASTIC **CARRIERS** FOR **ENZYME LINKED** IMMUNO SORBENT ASSAY TESTS.
AUTHOR(S): WARD L; SEVER J; SHEKARCHI I; MADDEN D
CORPORATE SOURCE: NINCDS, NIH, BETHESDA, MD.
SOURCE: 81ST ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, DALLAS, TEX., USA, MARCH 1-6, 1981. ABSTR ANNU MEET AM SOC MICROBIOL, (1981) 81 (0), 286. CODEN: ASMACK. ISSN: 0094-8519.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L7 ANSWER 45 OF 47 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1979:273088 BIOSIS
DOCUMENT NUMBER: BA68:75592
TITLE: A TOTAL SYNTHESIS OF RACEMIC CERULENIN.
AUTHOR(S): BOECKMAN R K JR; THOMAS E W
CORPORATE SOURCE: DEP. CHEM., WAYNE STATE UNIV., DETROIT, MICH. 48202, USA.
SOURCE: J AM CHEM SOC, (1979) 101 (4), 987-994. CODEN: JACSAT. ISSN: 0002-7863.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB A general route to endocyclic .alpha.,.beta.-epoxy-.gamma.-butyrolactones from the fungus Cephalosporium caerulens is described. The .alpha.,.beta.-epoxylactones are potential protein cross-linking agents based upon the spectrum of reactivity displayed with amines and thiolate anion. The epoxylactone is prepared from 1-bromo-2-butyne and serves as the key intermediate in a total synthesis of cerulenin [an antibiotic], an important substance for the study of the enzyme systems involved in fatty acid biosynthesis, and inhibition of .beta.-keto-acyl-carrier-protein synthetase in Escherichia coli.

L7 ANSWER 46 OF 47 WPIDS (C) 2003 THOMSON DERWENT

ACCESSION NUMBER: 1966-25225F [00] WPIDS
TITLE: Manufacture of artificial antigens.
DERWENT CLASS: B00
PATENT ASSIGNEE(S): (BEHW) BEHRINGWERKE AG
COUNTRY COUNT: 3
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
GB 1058828	A		(196800)*		
DE 1467782	A		(196801)		
JP 44002815	B		(196801)		

PRIORITY APPLN. INFO: DE 1963-B702720 19630717
AN 1966-25225F [00] WPIDS
AB GB 1058828 A UPAB: 19930831
Process for the manufacture of artificial antigens in which a serologically determinant peptide (I) of a **protein** (virus, bacteria, toxin, hormone, or **enzyme**, etc.) is **linked** to a **carrier** protein (II) (egg albumin, lactalbumin, serum albumin, gamma-globulin, etc. (all opt. cross-linked with diisocyanates)) by an org. grouping (III) which forms covalent bonds with (I) and (II).

Artificial antigens may be used for the prodn. of neutralizing antibodies in the form of antisera. Antibodies thus prepd. neutralize the biologically active protein from which (I) was obtd. In addition several artificial antigens may be mixed without degradation and inactivation (interference phenomena). Also different (I) may be linked to the same (II).

L7 ANSWER 47 OF 47 CONFSCI COPYRIGHT 2003 CSA
ACCESSION NUMBER: 83:924 CONFSCI
DOCUMENT NUMBER: 83012220
TITLE: Polycarbonate-coated microsticks as solid-phase **carriers** in **enzyme-linked** immunoassay for rubella **antibody**
AUTHOR: Shekarchi, I.C.; Tzan, N.; Sever, J.
CORPORATE SOURCE: Natl. Inst. Neurological & Communicative Disorders & Stroke, NIH, Bethesda, MD
SOURCE: For information please contact: American Society for Microbiology, 1913 I St. NW, Washington, DC 20006. Meeting Info.: 831 5002: American Society for Microbiology, 83rd Annual Meeting (8315002). New Orleans, LA. 6-11 Mar 83. American Society for Microbiology (ASM).
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: UNAVAILABLE

FILE 'HOME' ENTERED AT 10:53:40 ON 06 MAR 2003

Studies in cell-free extracts have shown that covalent attachment of ubiquitin to the protein requires the three conjugating enzymes: E1, a novel species of ubiquitin-**carrier protein** (ubiquitin-**conjugating enzyme**; UBC),E2-F1, and an ubiquitin-protein ligase, E3. Recognition of p53 by the ligase is facilitated by formation of a complex between the protein and the human papillomavirus (HPV) oncoprotein E6. Therefore, the ligase has been designated E6-associated protein (E6-AP). However, these in vitro studies have not demonstrated that the conjugates serve as essential intermediates in the proteolytic process. In fact, in many cases, conjugation of ubiquitin to the target protein does not signal its degradation. Thus, it is essential to demonstrate that p53-ubiquitin adducts serve as essential proteolytic intermediates and are recognized and degraded by the 26S protease complex, the proteolytic arm of the ubiquitin pathway. In this study, we demonstrate that conjugates of p53 generated in the presence of purified, E1, E2, E6-AP, E6, ubiquitin and ATP, are specifically recognized by the 26S protease complex and degraded. In contrast, unconjugated p53 remains stable. The ability to reconstitute the system from purified components will enable detailed analysis of the recognition process and the structural motifs involved in targeting the protein for degradation.

L7 ANSWER 19 OF 47 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1992-096888 [12] WPIDS
DOC. NO. NON-CPI: N1992-072428
DOC. NO. CPI: C1992-045014
TITLE: Activation of polymeric carrier using 4-fluorobenzenesulphonyl chloride - for binding biologically active organic ligand for isolating target population.
DERWENT CLASS: A89 B04 D16 J04 R16 S03
INVENTOR(S): CHANG, Y
PATENT ASSIGNEE(S): (BAXT) BAXTER INT INC; (BAXT) BAXTER TRAVENOL LAB INC
COUNTRY COUNT: 15
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9203544	A	19920305	(199212)*		30
RW: AT CH DE DK ES GB GR LU NL SE					
W: CA JP					
EP 502140	A1	19920909	(199237)	EN	30
R: DE FR GB IT					
US 5204451	A	19930420	(199317)		9

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9203544	A	WO 1991-US5689	19910809
EP 502140	A1	EP 1991-915059	19910809
		WO 1991-US5689	19910809
US 5204451	A	US 1990-567481	19900813

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 502140	A1 Based on	WO 9203544

PRIORITY APPLN. INFO: US 1990-567481 19900813
AN 1992-096888 [12] WPIDS
AB WO 9203544 A UPAB: 19931006
Binding a biologically active organic ligand (I) to a polymeric carrier having at least one hydroxy gp. comprises contacting the polymeric carrier with 4-fluorobenzene sulphonyl chloride and then with (I).

(I) is an antigen, **antibody** or **enzyme**. The **carrier** is formed from polystyrene, polysaccharide, **crosslinked** agarose, cellulose, maleated cellulose or sepharose in the form of beads, fibre, rod, columns or paramagnetic beads.

USE/ADVANTAGE - The activated carrier is useful for isolating a desired target population from a heterogeneous mixt. The method is an improvement of the method disclosed in US4415665 (Mosbach) where the substitution of the ligand for the 4-fluorobenzene sulphonyl chloride on the substrate is completed in 6 hrs. instead of not less than 16 hrs. required for the p-toluenesulphonyl chloride.
0/0

ABEQ US 5204451 A UPAB: 19931025
Process for binding a biologically active organic ligand (e.g. protein) to a polymeric carrier contg. OH gps. (e.g. crosslinked agarose, cellulose or sepharose) comprises activating the carrier by reaction with 4-fluoro-benzenesulphonyl chloride in a non-aq. polar solvent contg. a tert. base under ambient conditions; then elution of excess reagents, side products and solvent, replacing the solvent with an aq. buffer soln.; and condensn. of the biological ligand with the activated carrier, when -SH or -NH2 gps. in the ligand react to displace fluorobenzenesulphonic acid, leaving the ligand bonded through -S- or -NH- to the carrier.

USE - The process is applicable to the immobilisation of enzymes, antigens, antibodies, etc., for purification or analysis.
Dwg.0/0

L7 ANSWER 20 OF 47 JAPIO COPYRIGHT 2003 JPO
ACCESSION NUMBER: 1992-029059 JAPIO
TITLE: SIMPLE ENZYME IMMUNOASSAY OF TISSUE PLASMINOGEN ACTIVATOR
INVENTOR: ASAHINA TOSHIRO; TOKUDA CHIKASHI; KAWAI YUKICHI; FUKUI HIDEO
PATENT ASSIGNEE(S): MITSUI TOATSU CHEM INC
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 04029059	A	19920131	Heisei	G01N033-53

APPLICATION INFORMATION
STN FORMAT: JP 1990-134116 19900525
ORIGINAL: JP02134116 Heisei
PRIORITY APPLN. INFO.: JP 1990-134116 19900525
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1992
AN 1992-029059 JAPIO

SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9856425	A1	19981217	WO 1998-GB1700	19980611
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9880282	A1	19981230	AU 1998-80282	19980611
AU 742255	B2	20011220		
EP 989864	A1	20000405	EP 1998-928451	19980611
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002511857	T2	20020416	JP 1999-501901	19980611
US 6372205	B1	20020416	US 2000-445732	20000522

PRIORITY APPLN. INFO.: EP 1997-304070 A 19970611
WO 1998-GB1700 W 19980611

AB Prodrugs which can be activated by enzymes, are formulated for sequential administration, with enzyme conjugates. Either or each component comprises a polymeric carrier which allows it to be directed preferentially to the target tissue. A new polymer-prodrug conjugate is cleavable by Cathepsin B or other thiol-dependent protease. The invention is of particular utility for targeting solid tumors.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:701052 HCAPLUS
DOCUMENT NUMBER: 129:313130
TITLE: Protein and peptide immobilization method using transglutaminase
INVENTOR(S): Fuchsbauer, Hans-Lothar; Pasternack, Ralf; Eymann, Rolf; Otterbach, Jens; Bechtold, Uwe
PATENT ASSIGNEE(S): Germany
SOURCE: Ger., 14 pp.
CODEN: GWXXAW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19732917	C1	19981015	DE 1997-19732917	19970730
WO 9906446	A2	19990211	WO 1998-EP4768	19980730